

Catalysis and covalent binding energies of antibodies

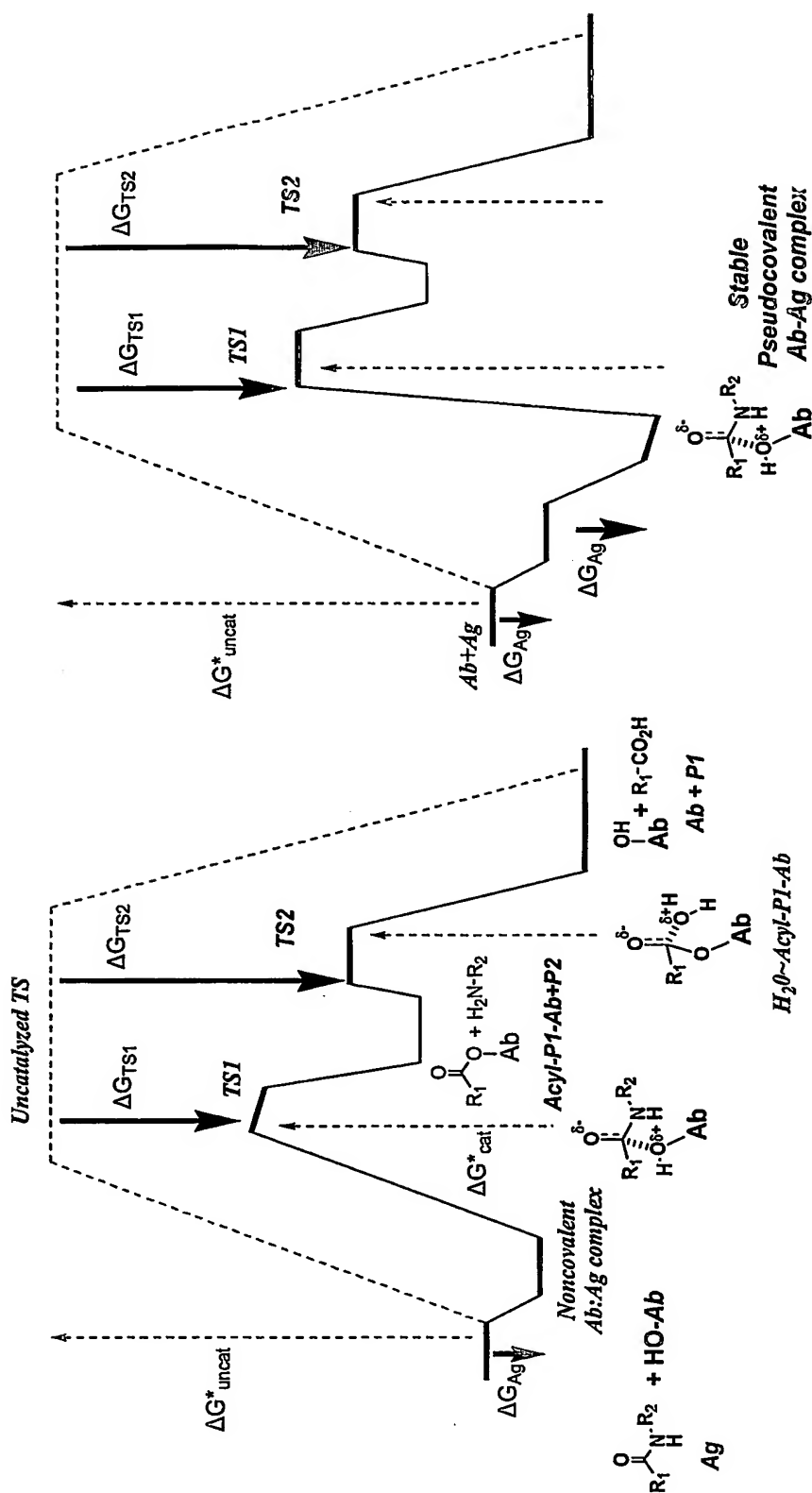
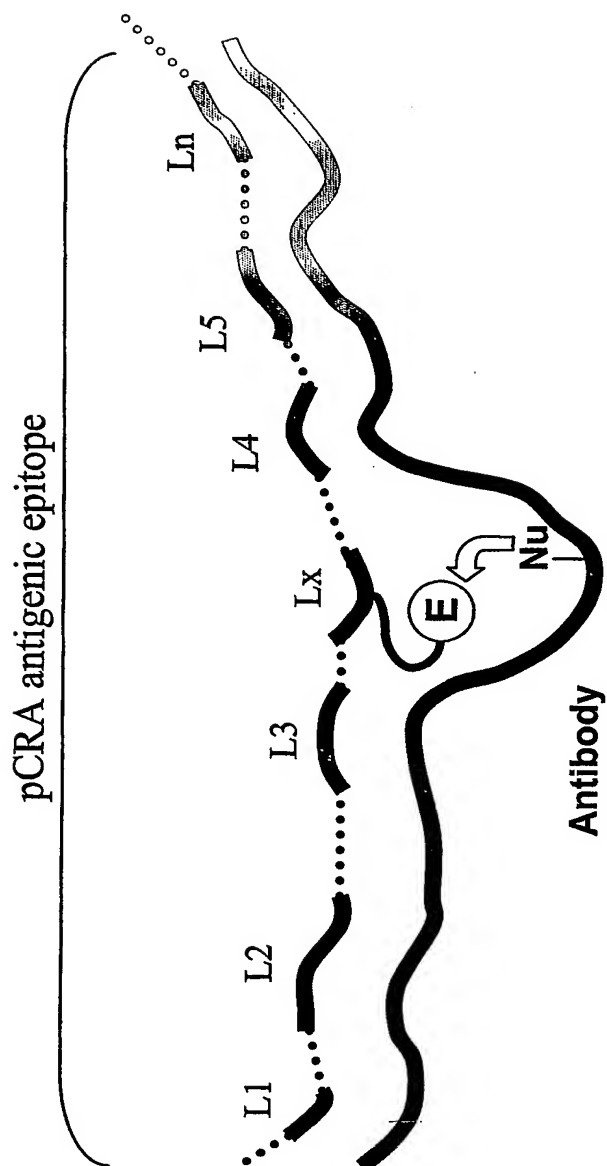


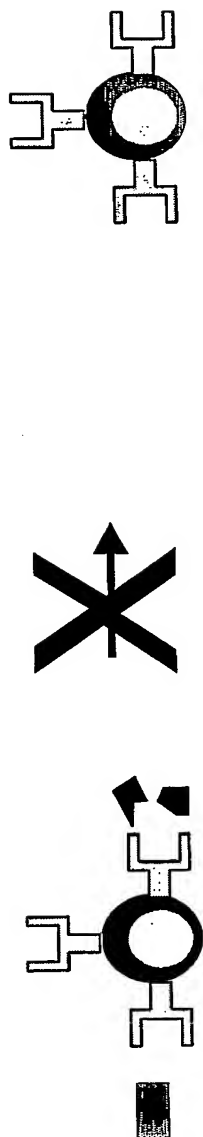
Fig 1

Fig 2

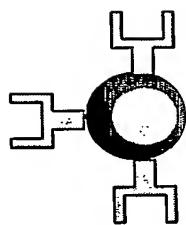


Induction of catalyst synthesis

Ordinary polypeptide antigen,
Slow transmembrane signal



Aborted clonal selection,
tolerance



Covalent stimulation,
Rapid transmembrane signal

Increased turnover, proliferation

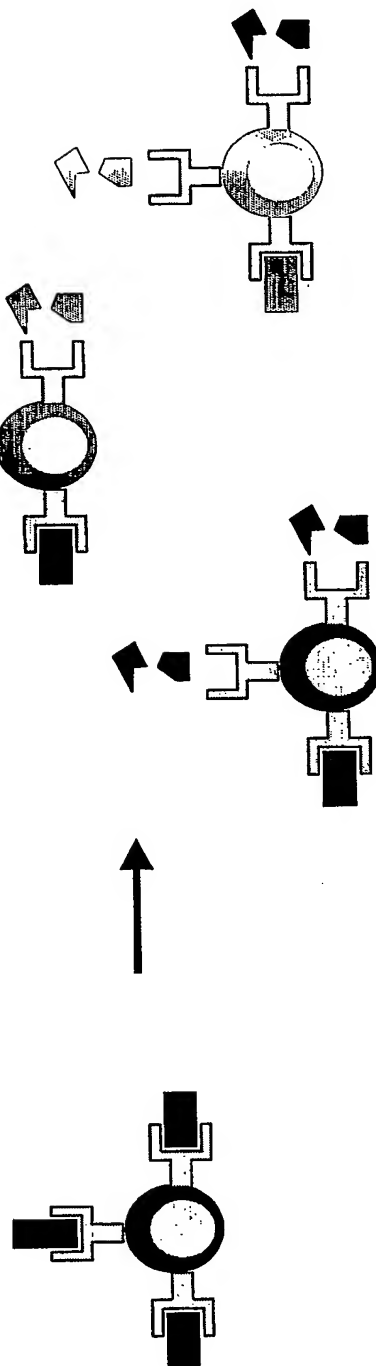
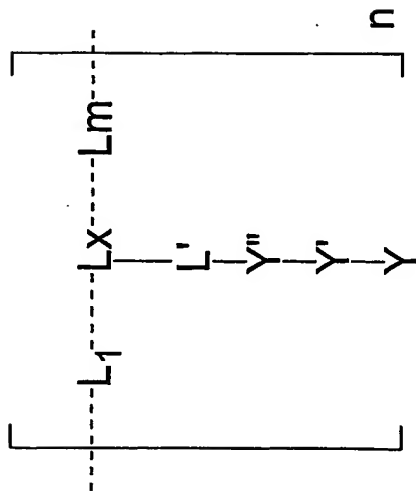


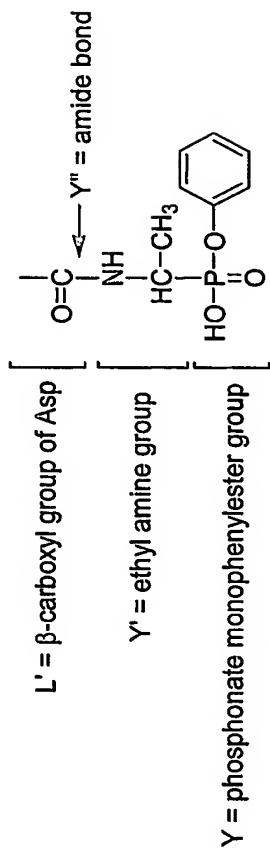
Fig 3

Fig 4

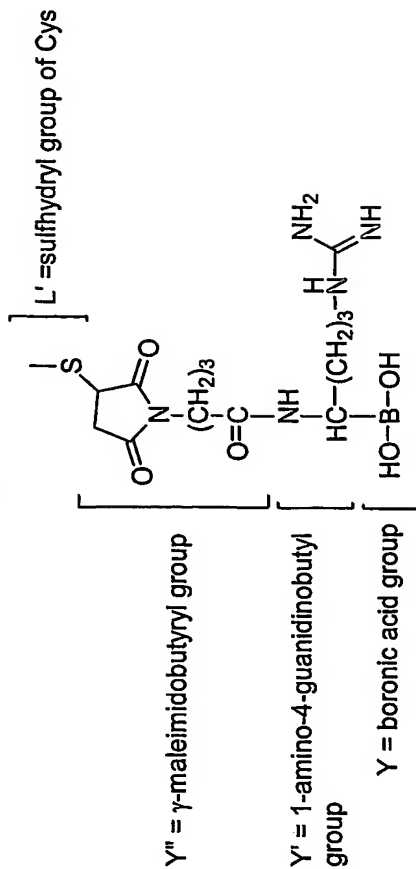
General structure of pCRA



• L'-Y''-Y'-Y, Example 1



• L'-Y''-Y'-Y, Example 3



• L'-Y''-Y'-Y, Example 2

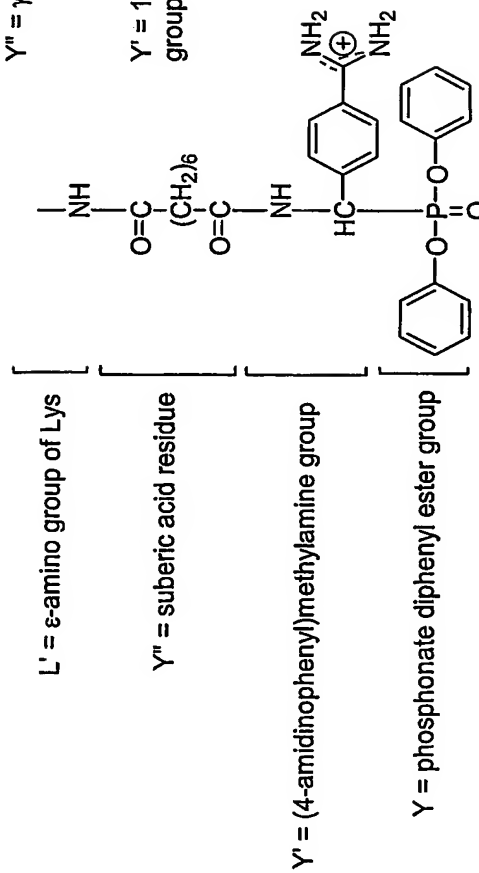
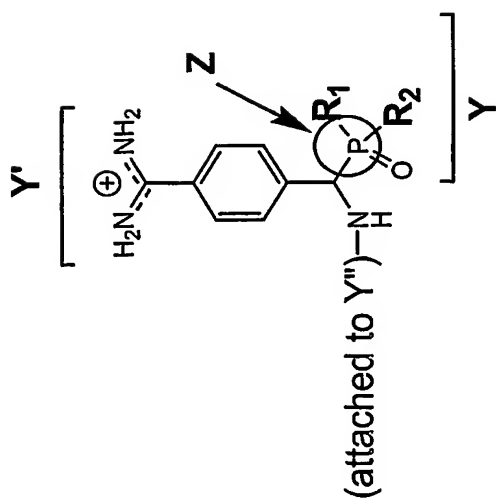
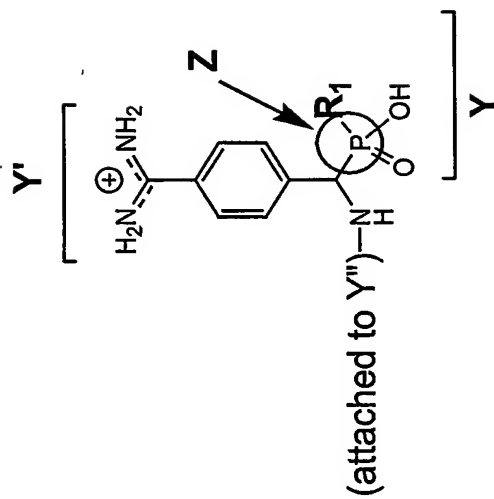


Fig 5A



pCRA Z-R pair: Example 1



pCRA Z-R pair: Example 2

Fig 5B

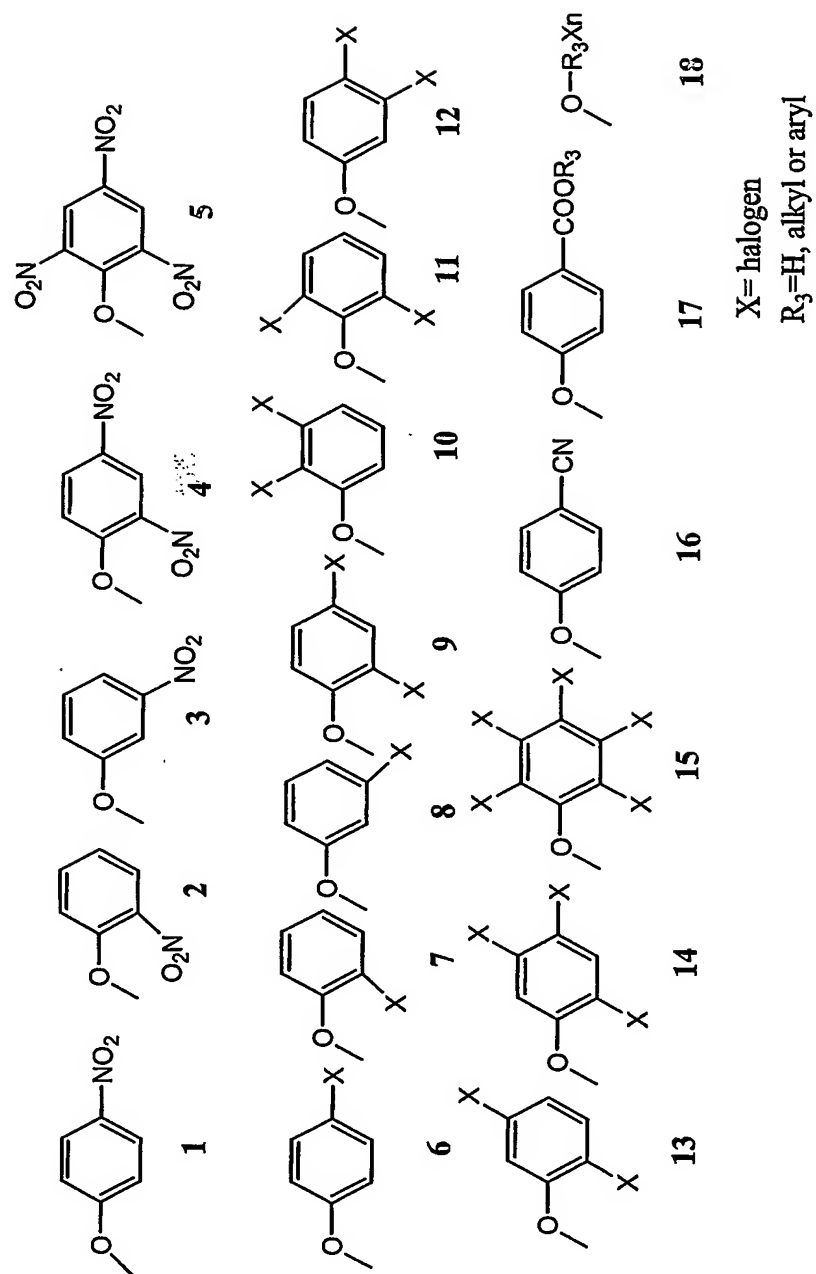
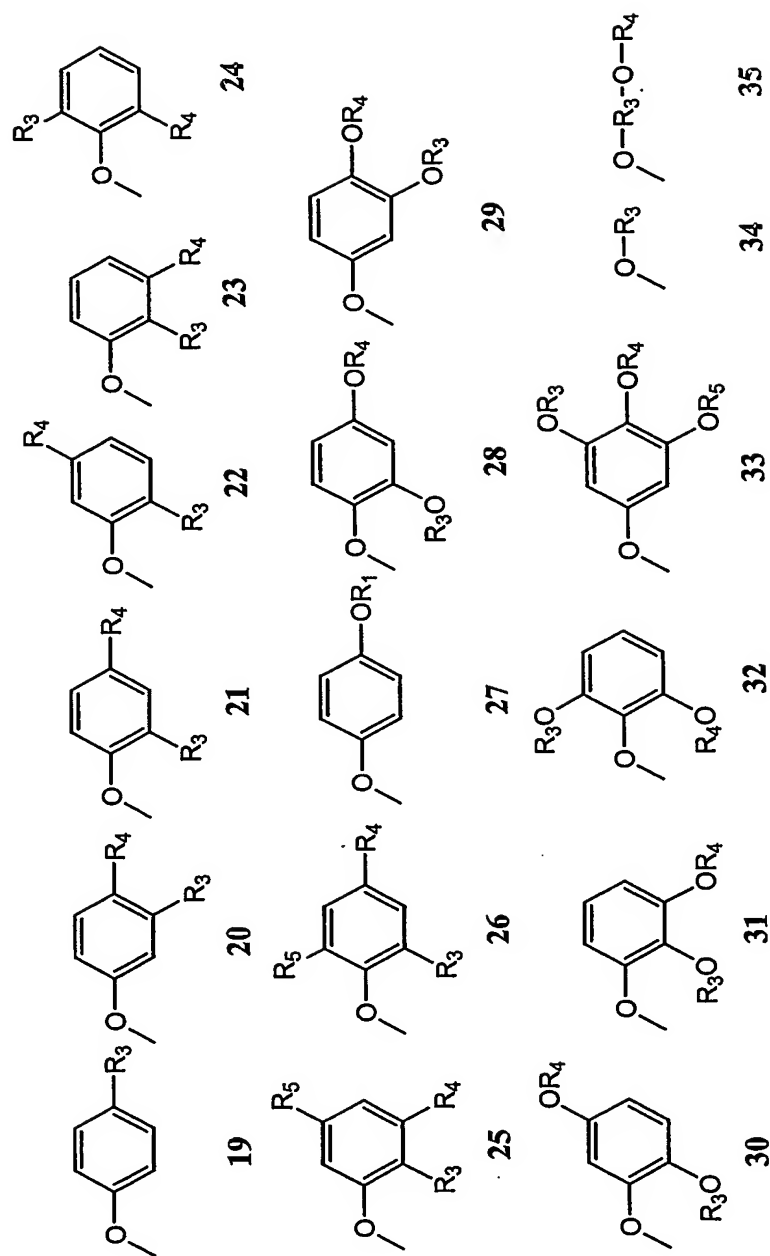


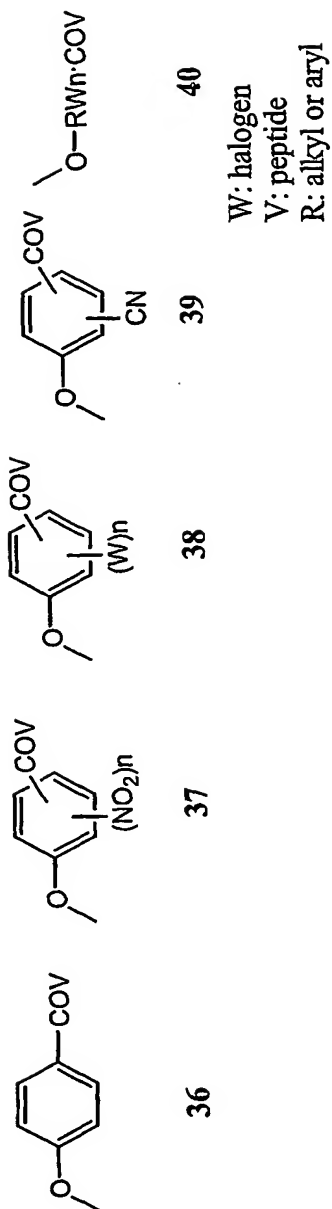
Fig 5C



$\text{R}_n = \text{H}$, alkyl or aryl

Fig 5D

A. Electron withdrawing substituents with peptide extension



B. Electron donating substituents with peptide extension

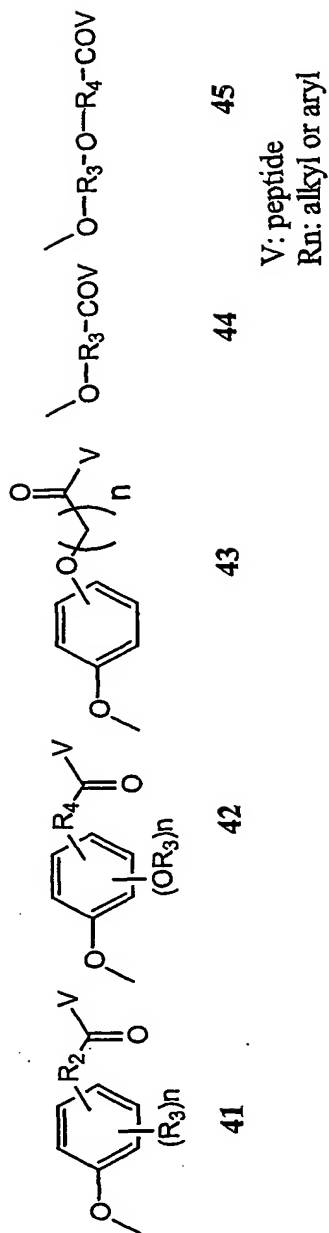


Fig. 7

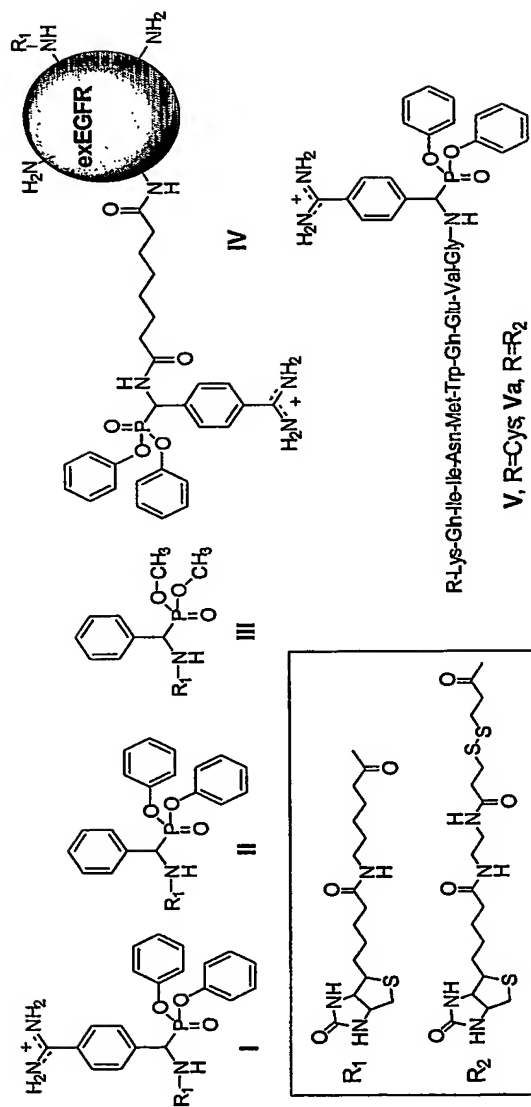


Fig. 8

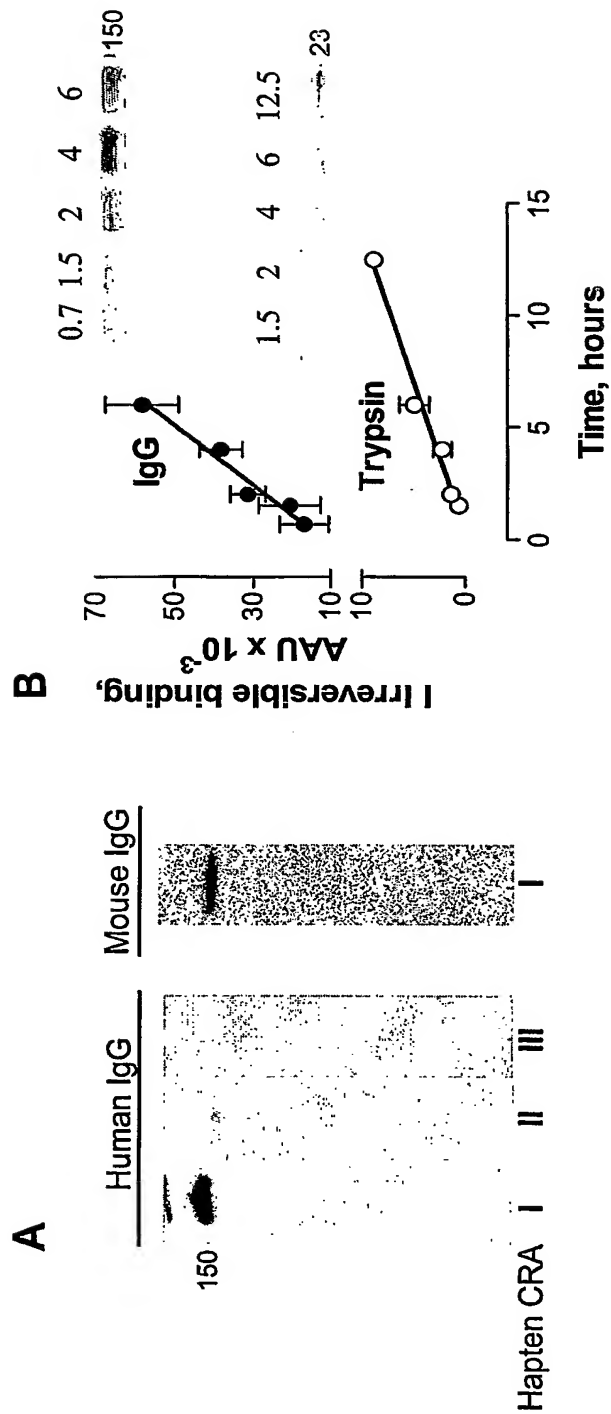


Fig. 9

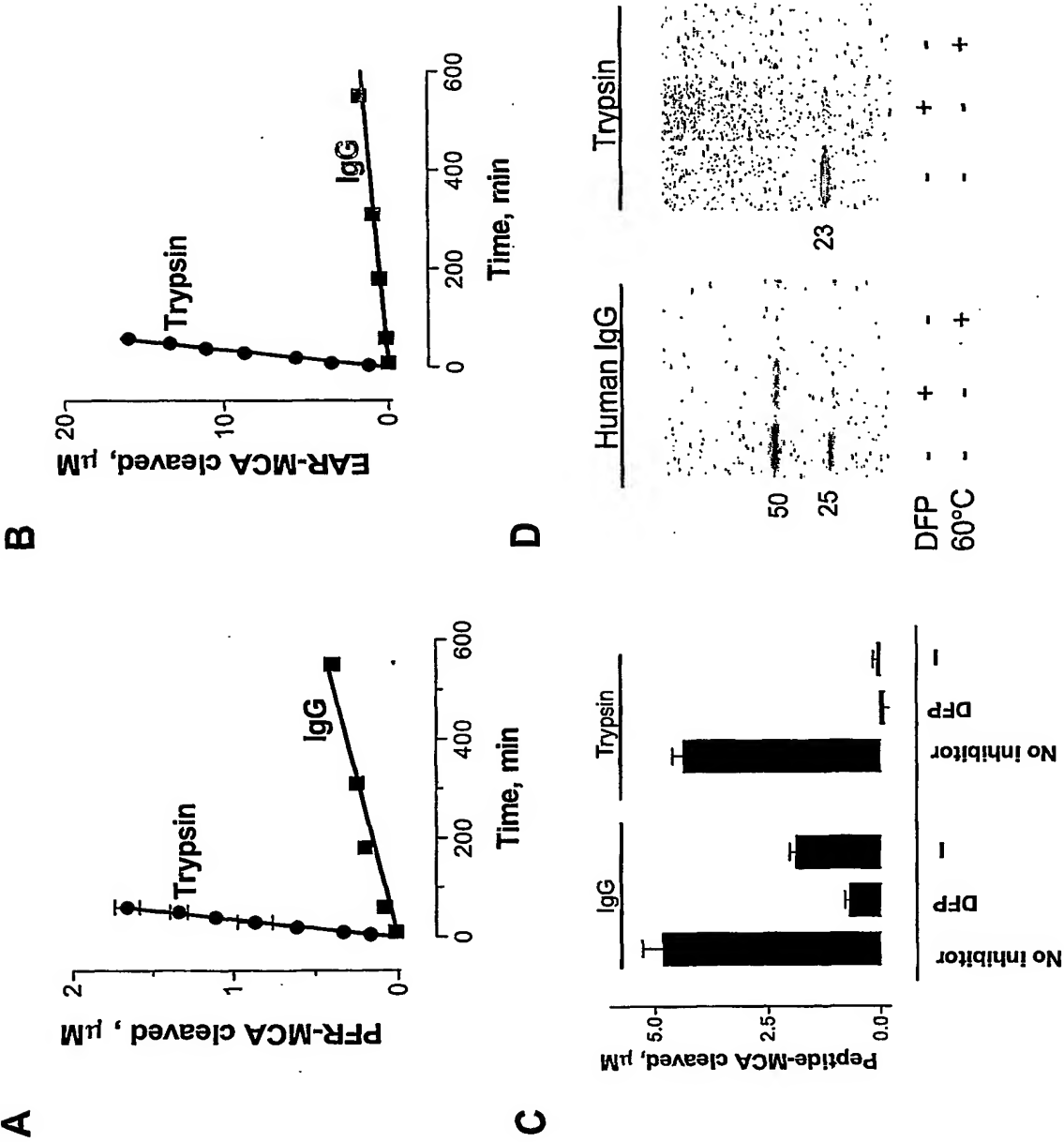
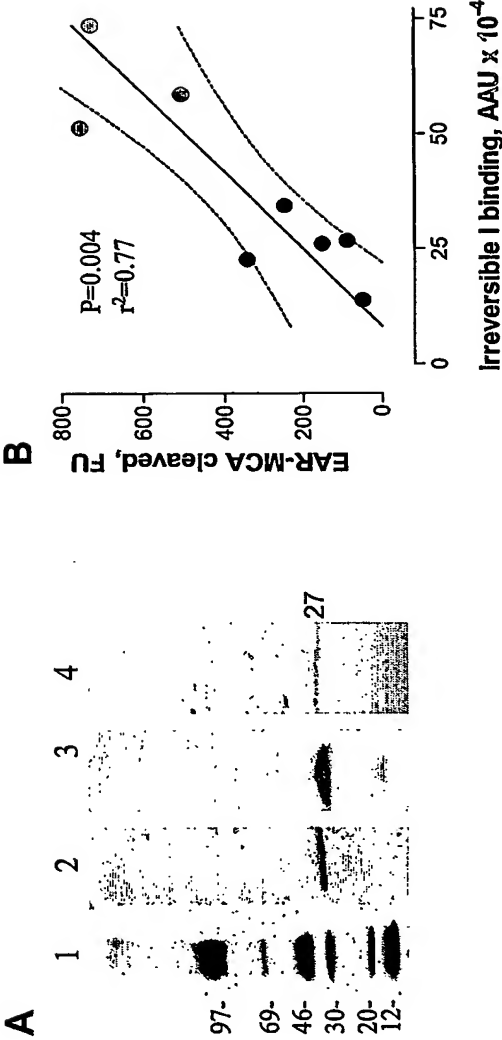


Fig. 10



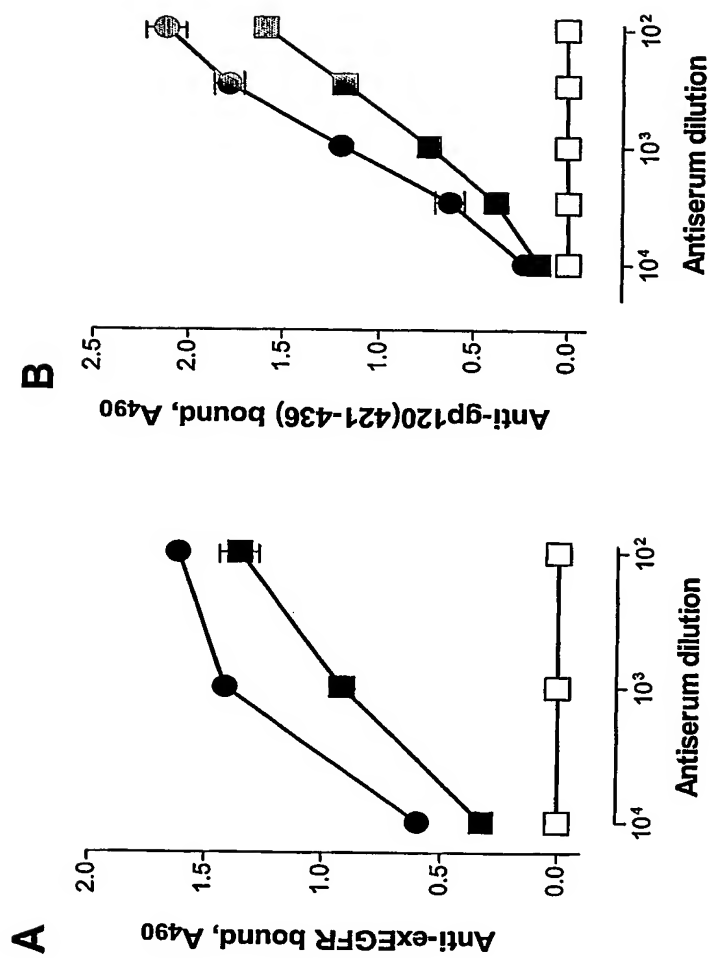


Fig 11

Fig 12

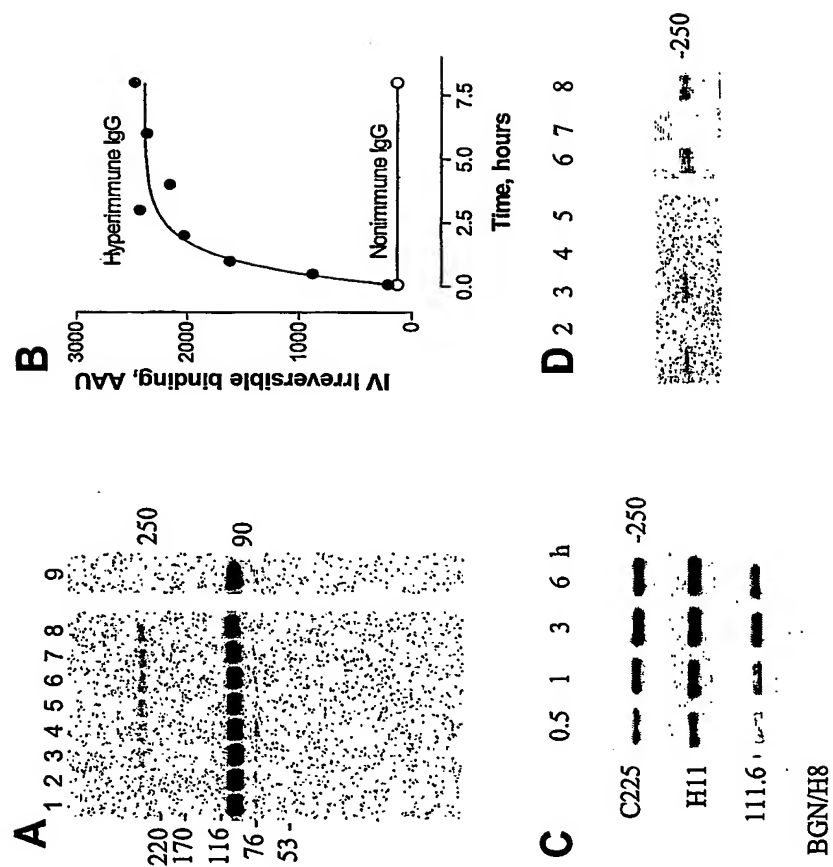


Fig 13

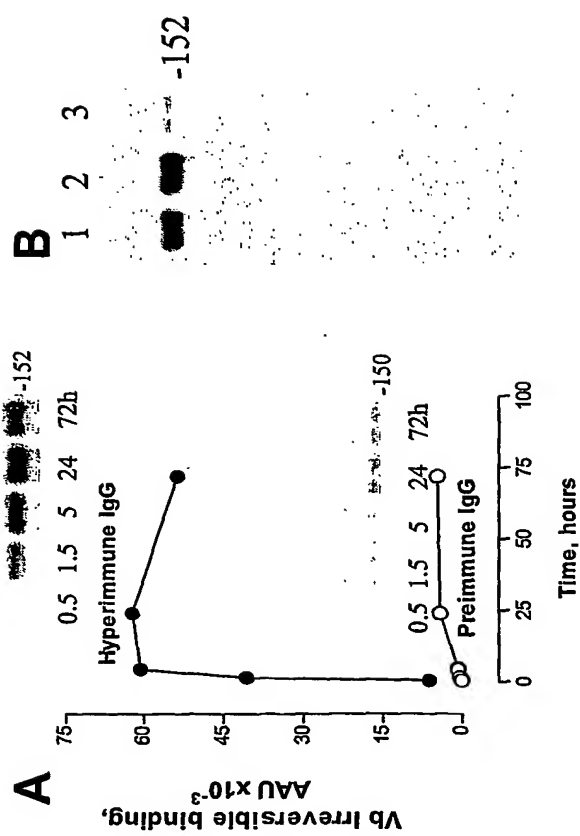


Fig 14

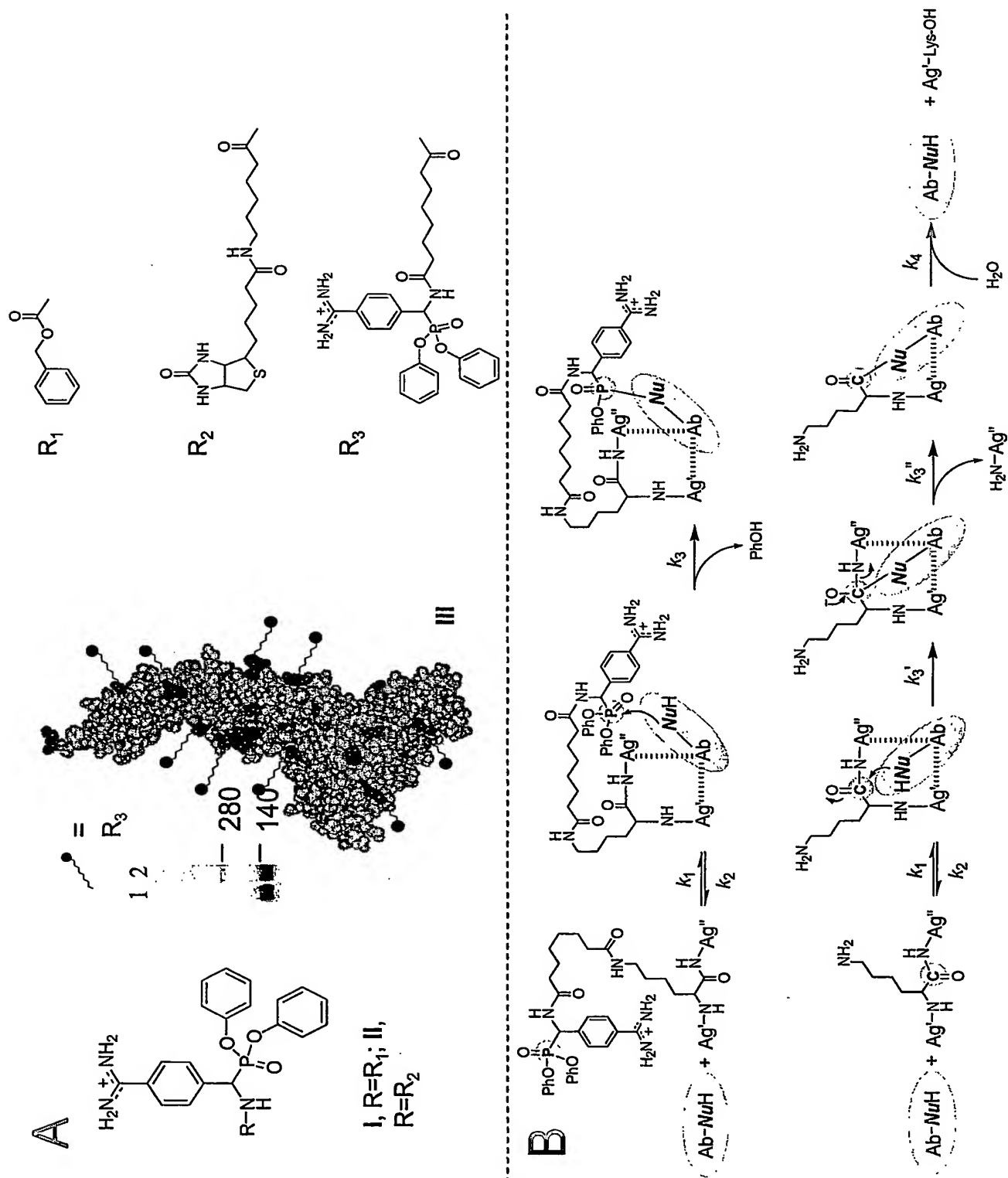


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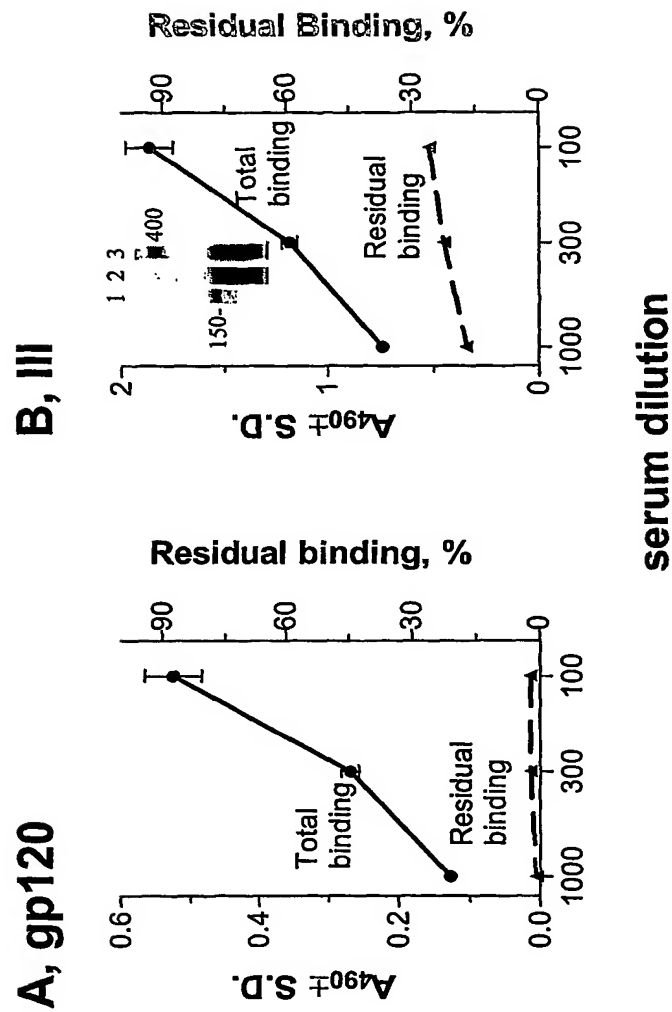


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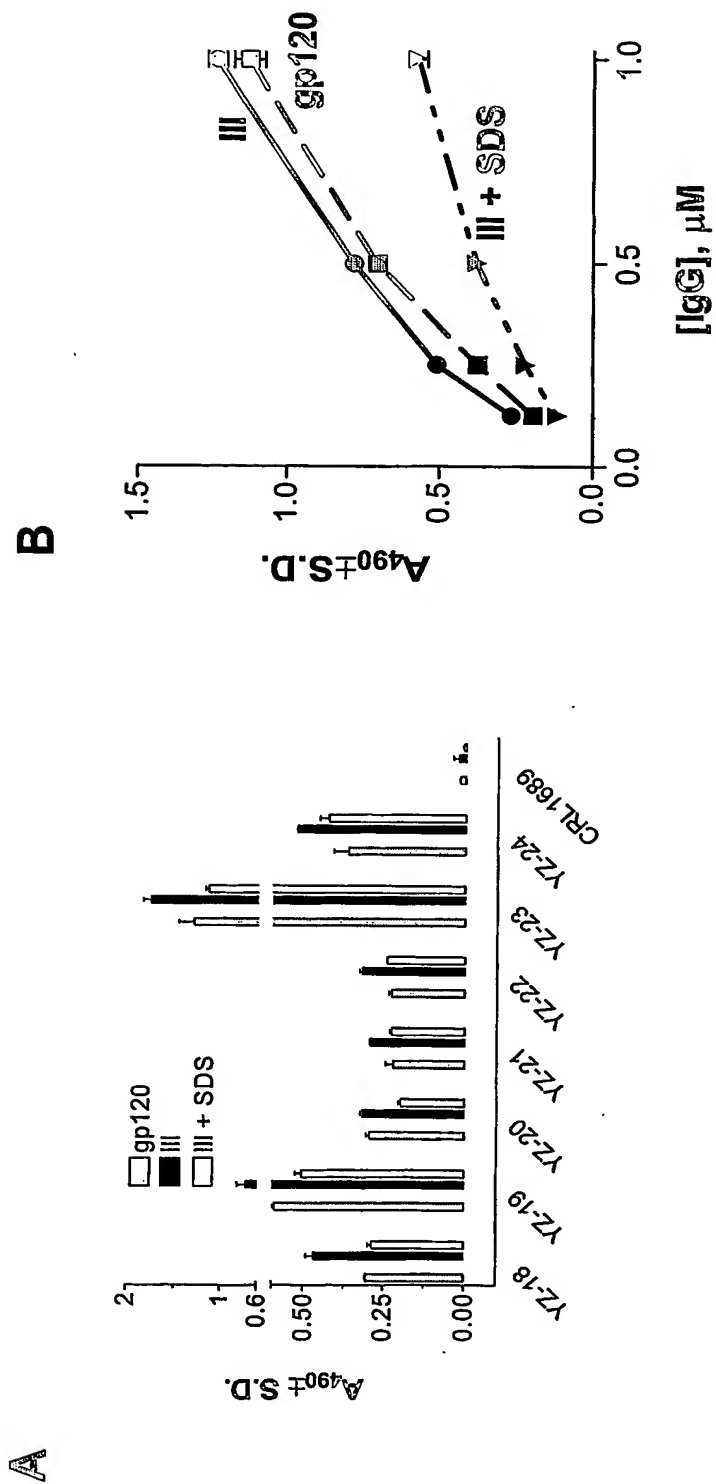


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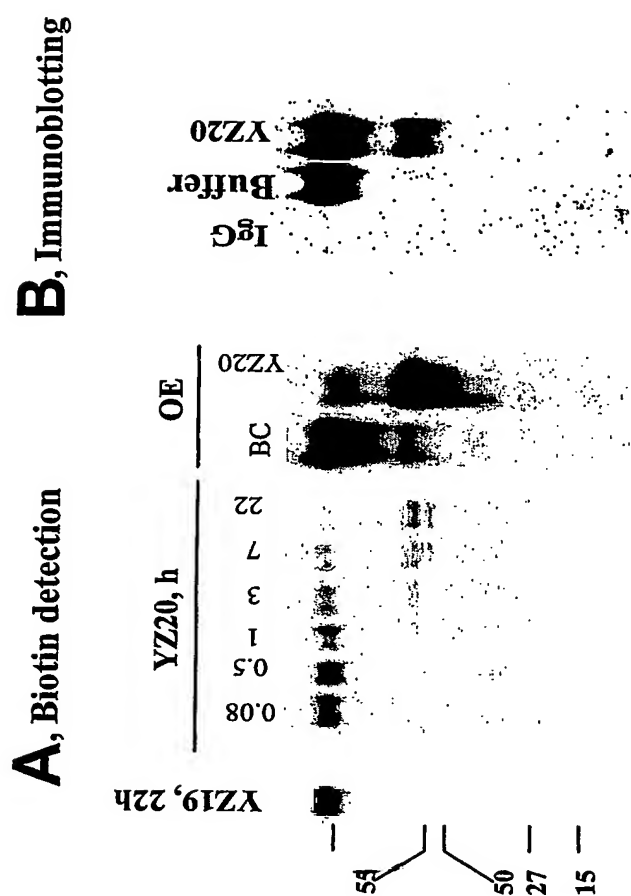


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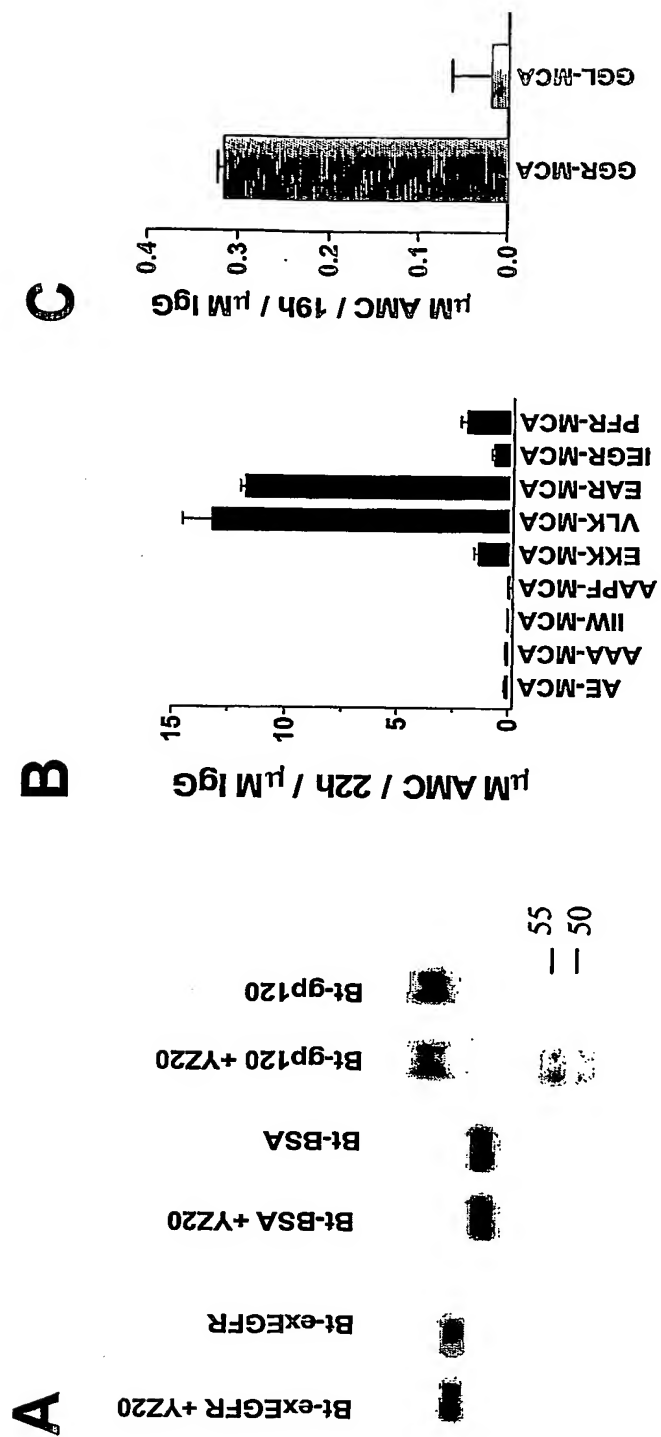


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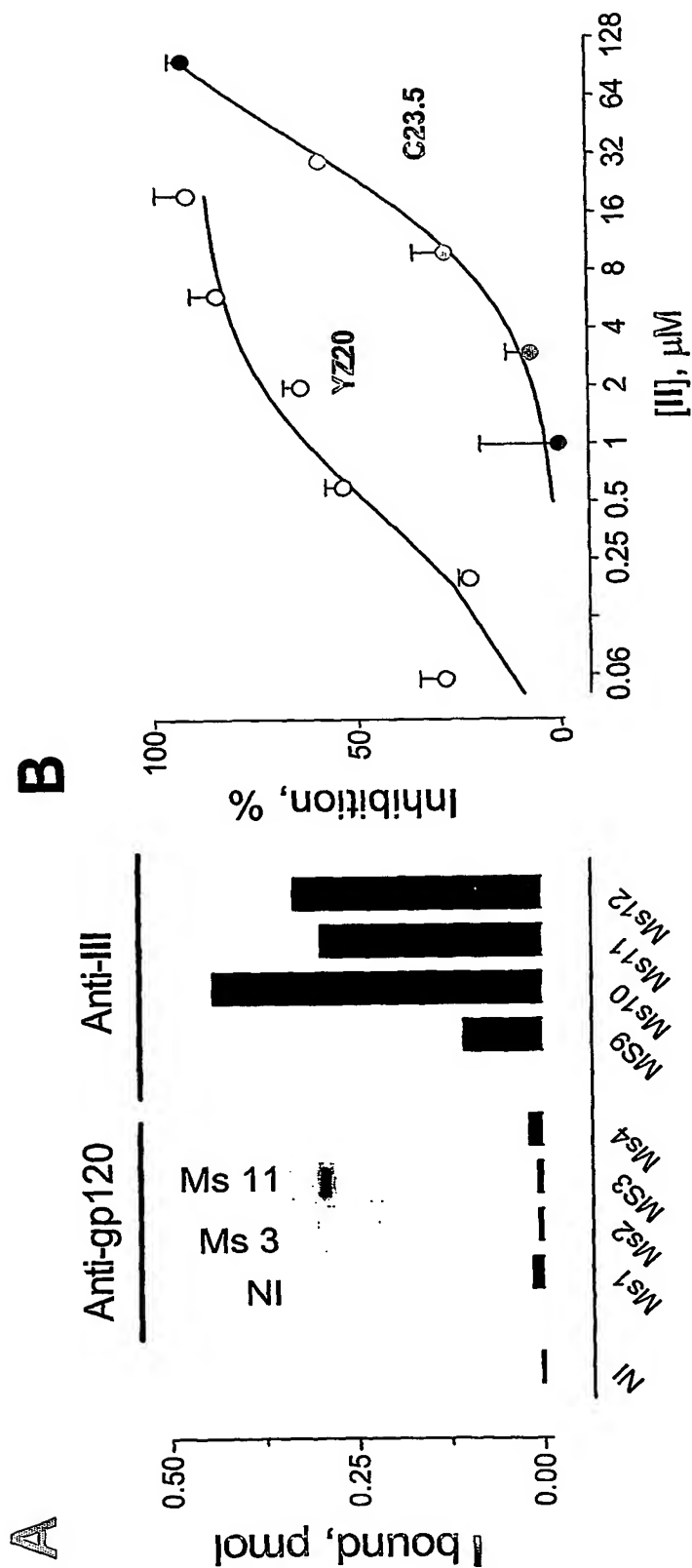
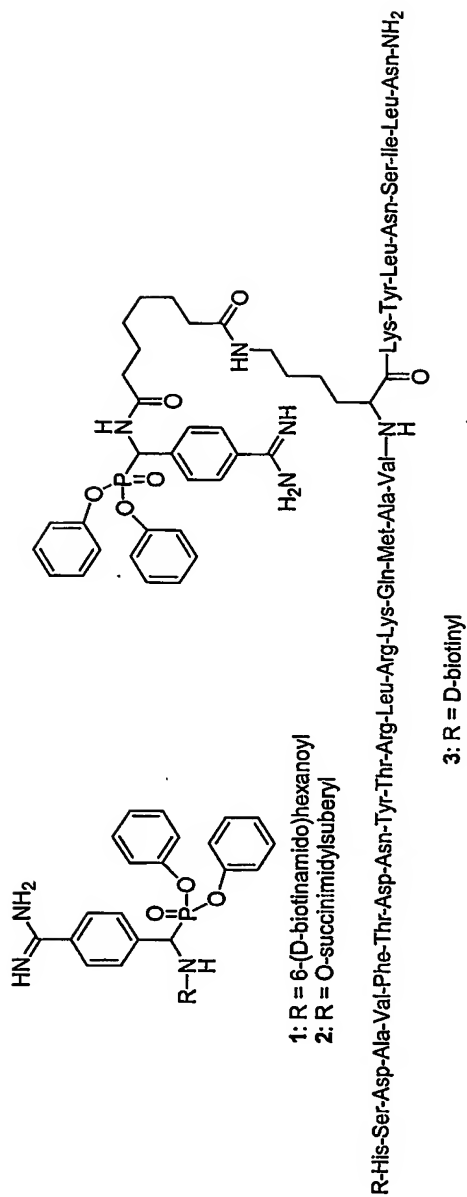


Fig 20

A



B

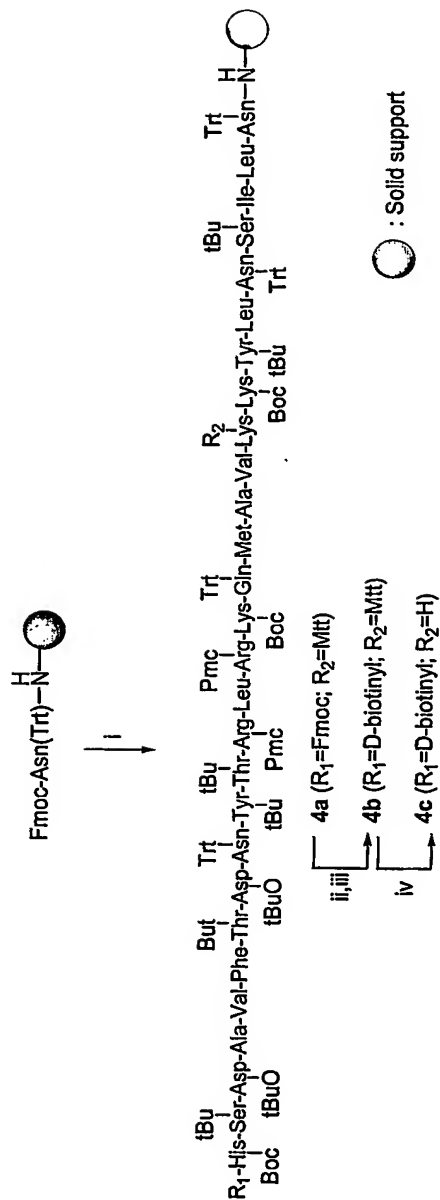


Fig 21

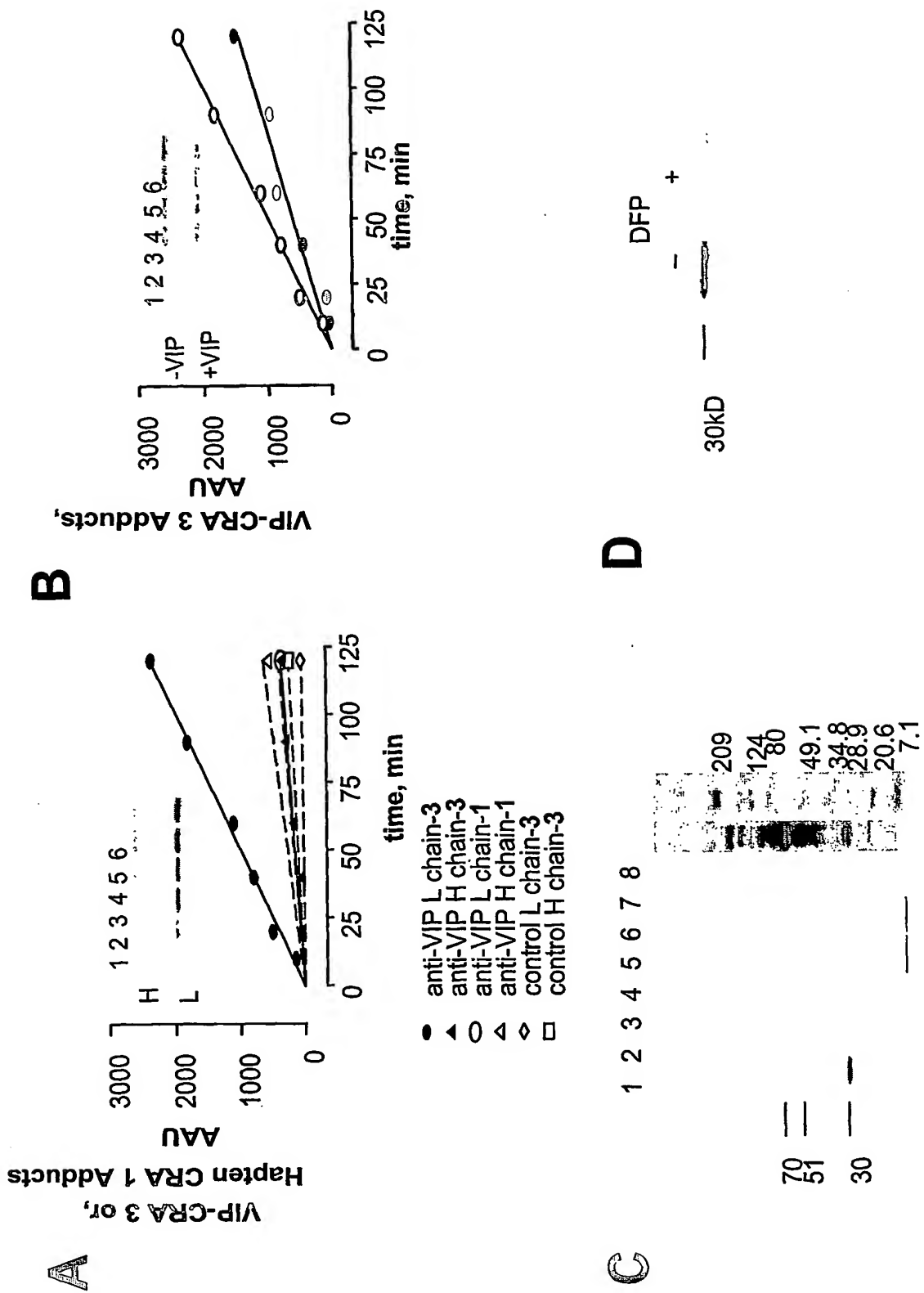
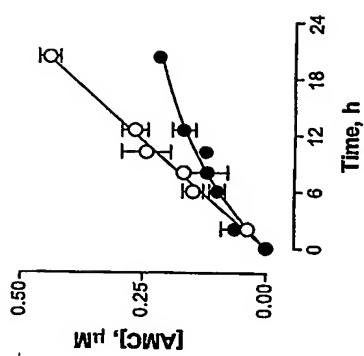
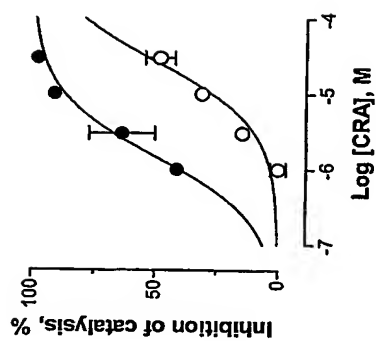


Fig 22

A



B



C

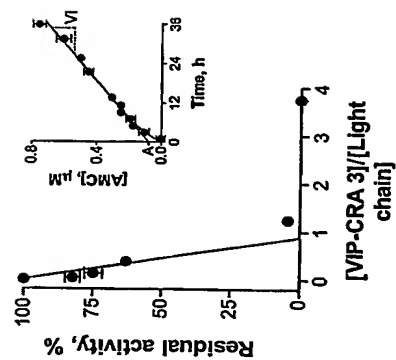
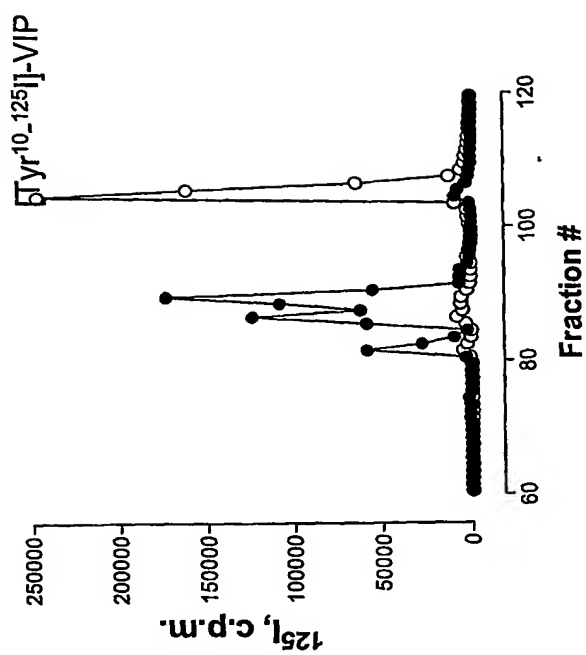


Fig 23

A



B

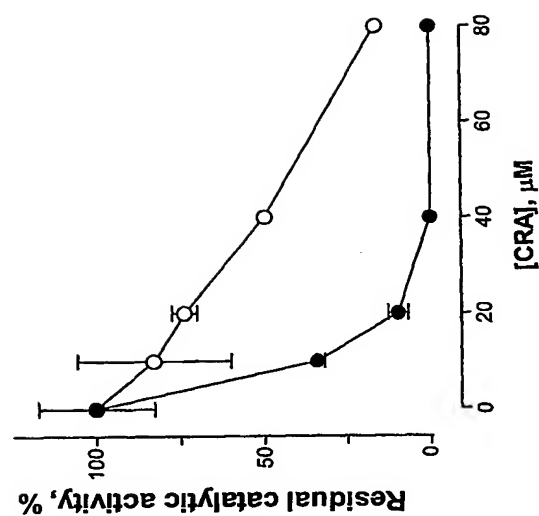


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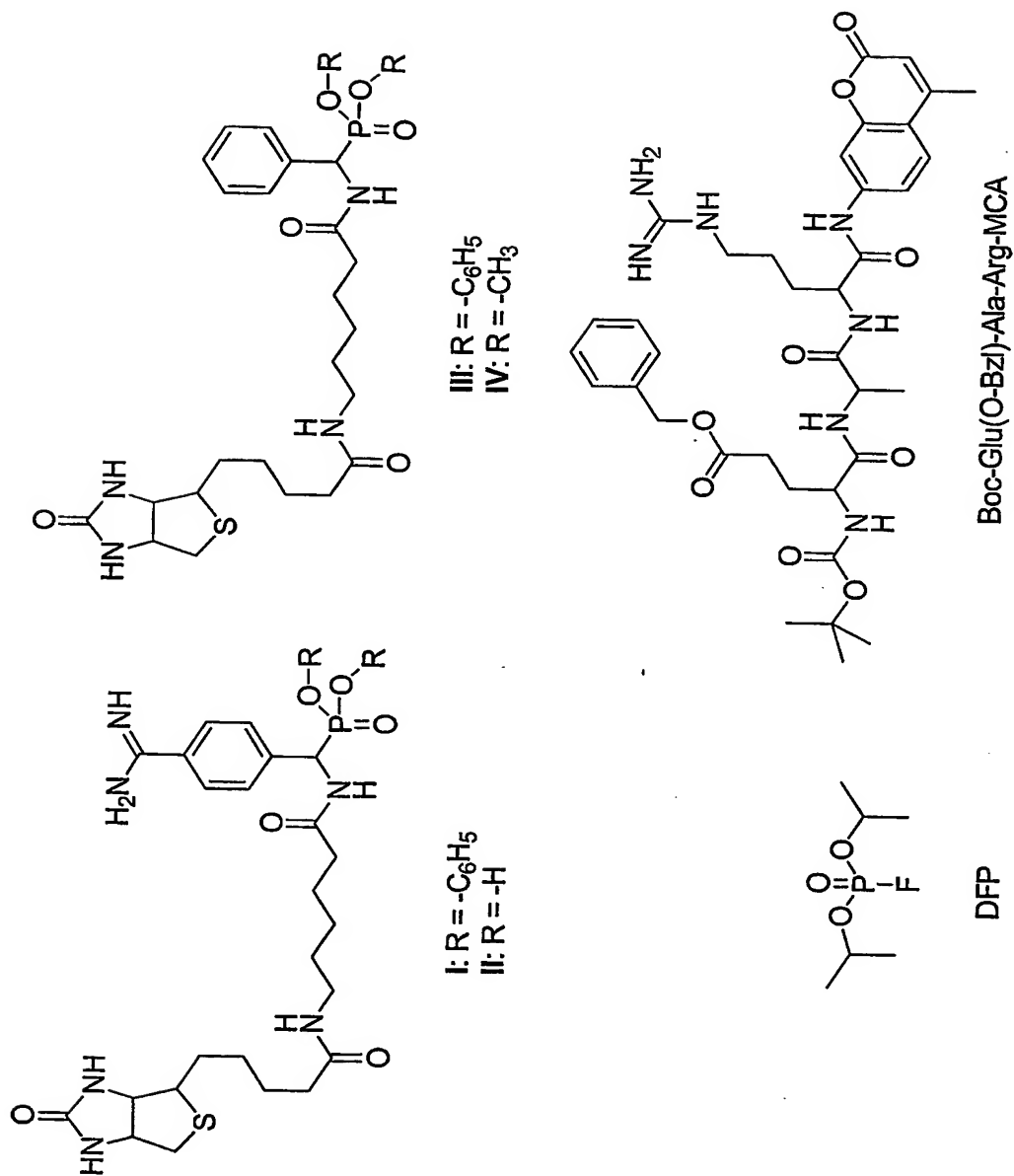


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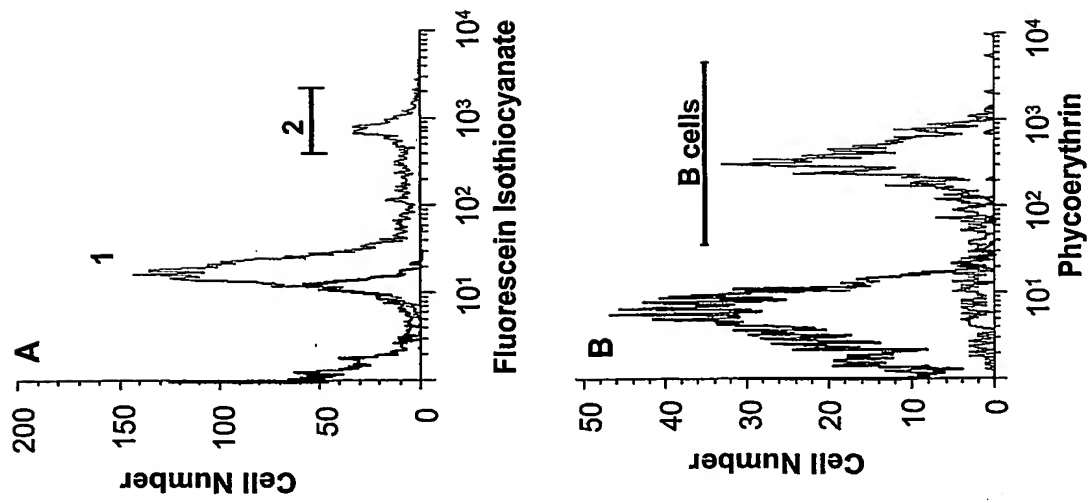


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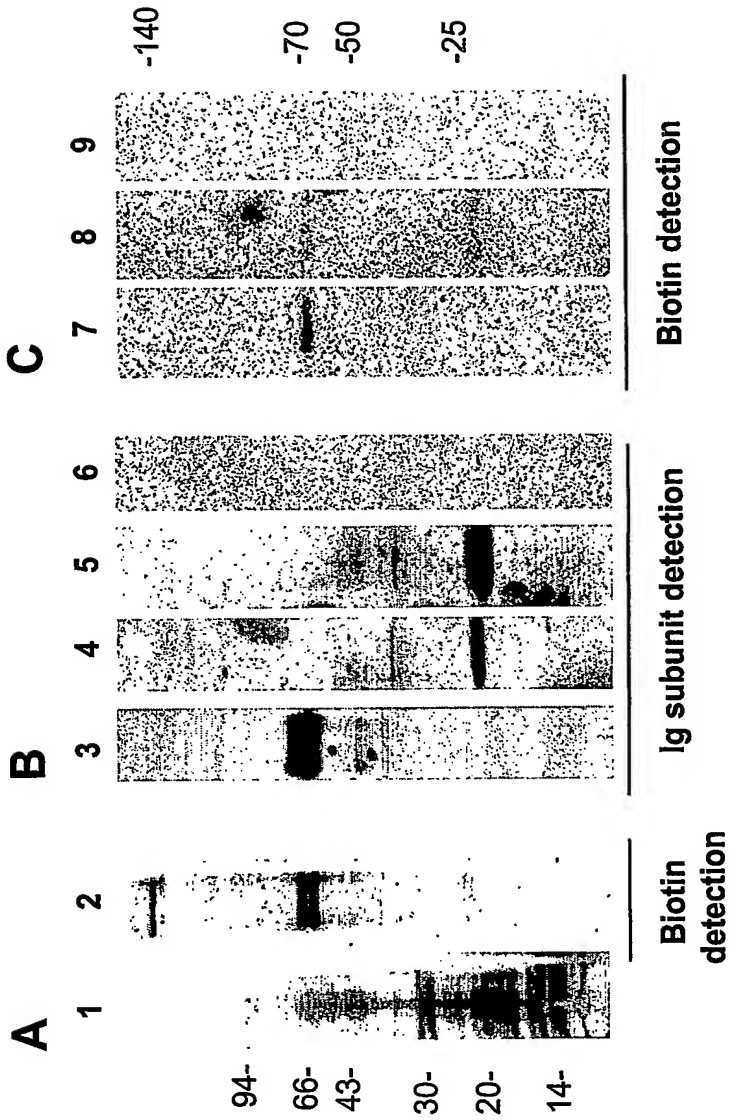


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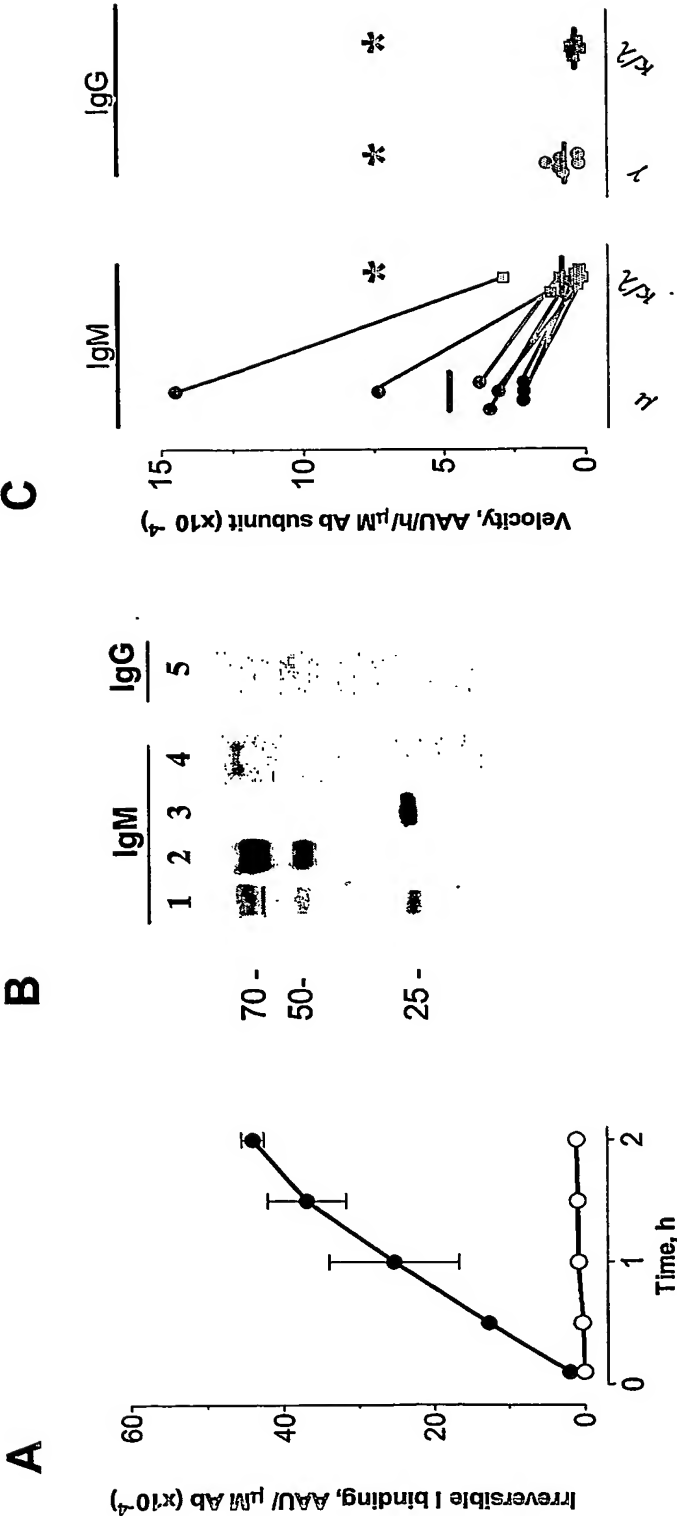


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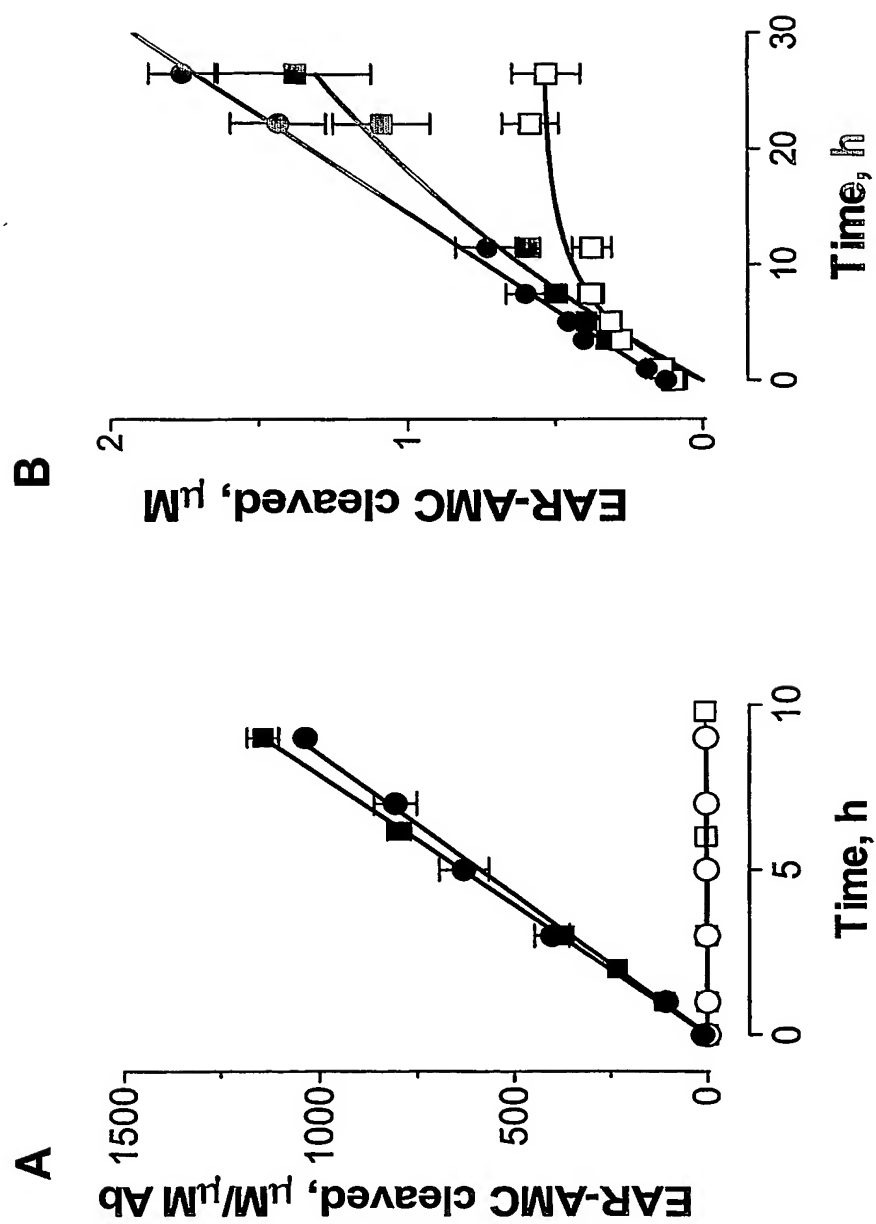
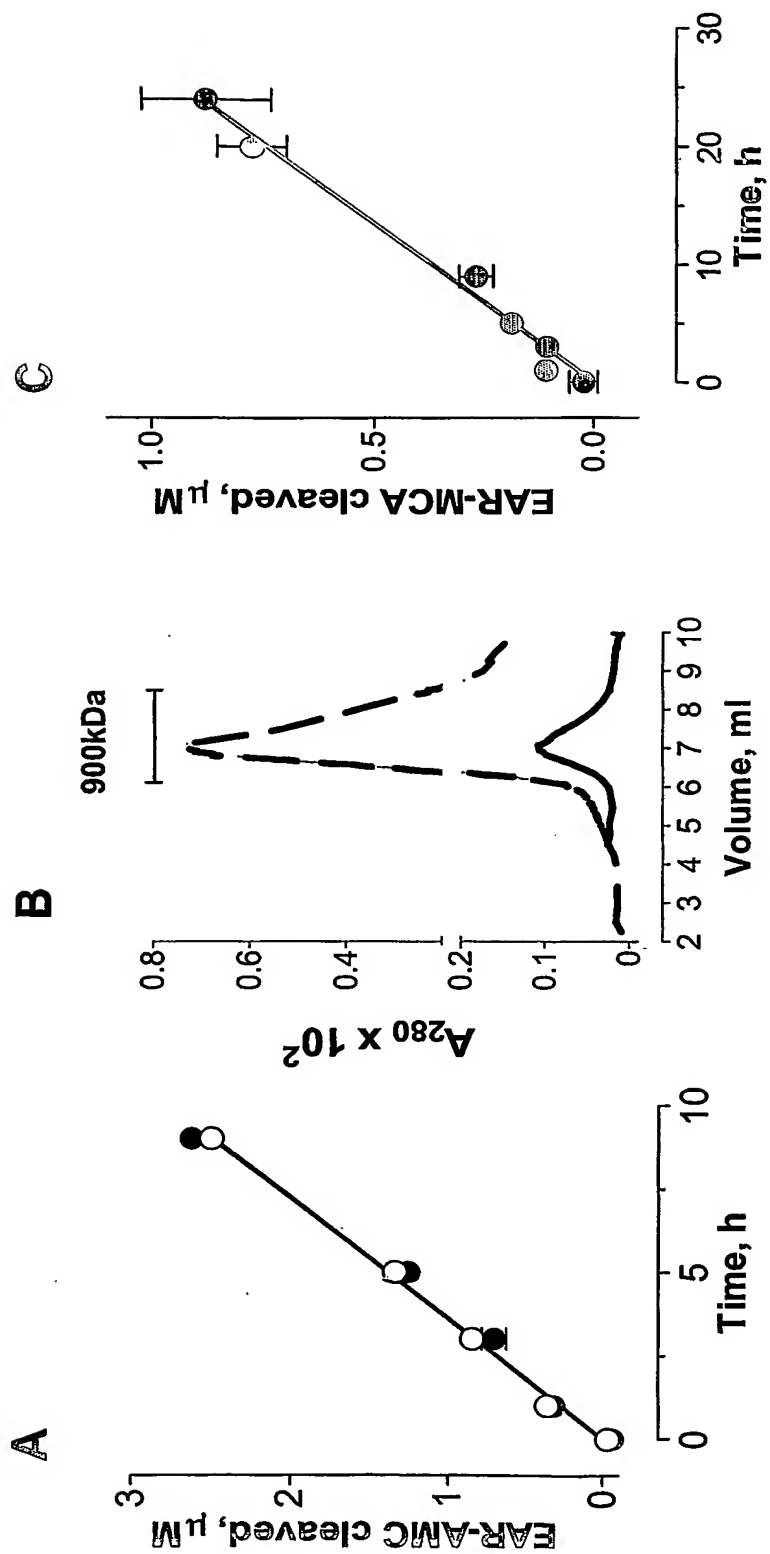


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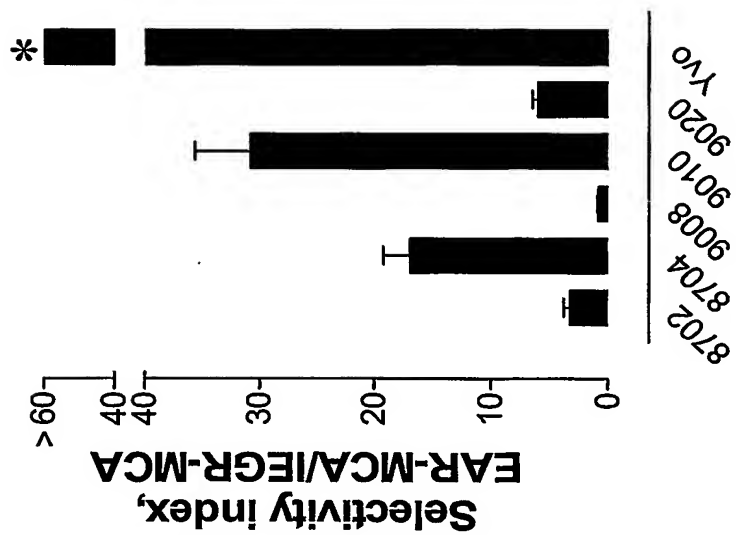


Fig 30

Fig 31

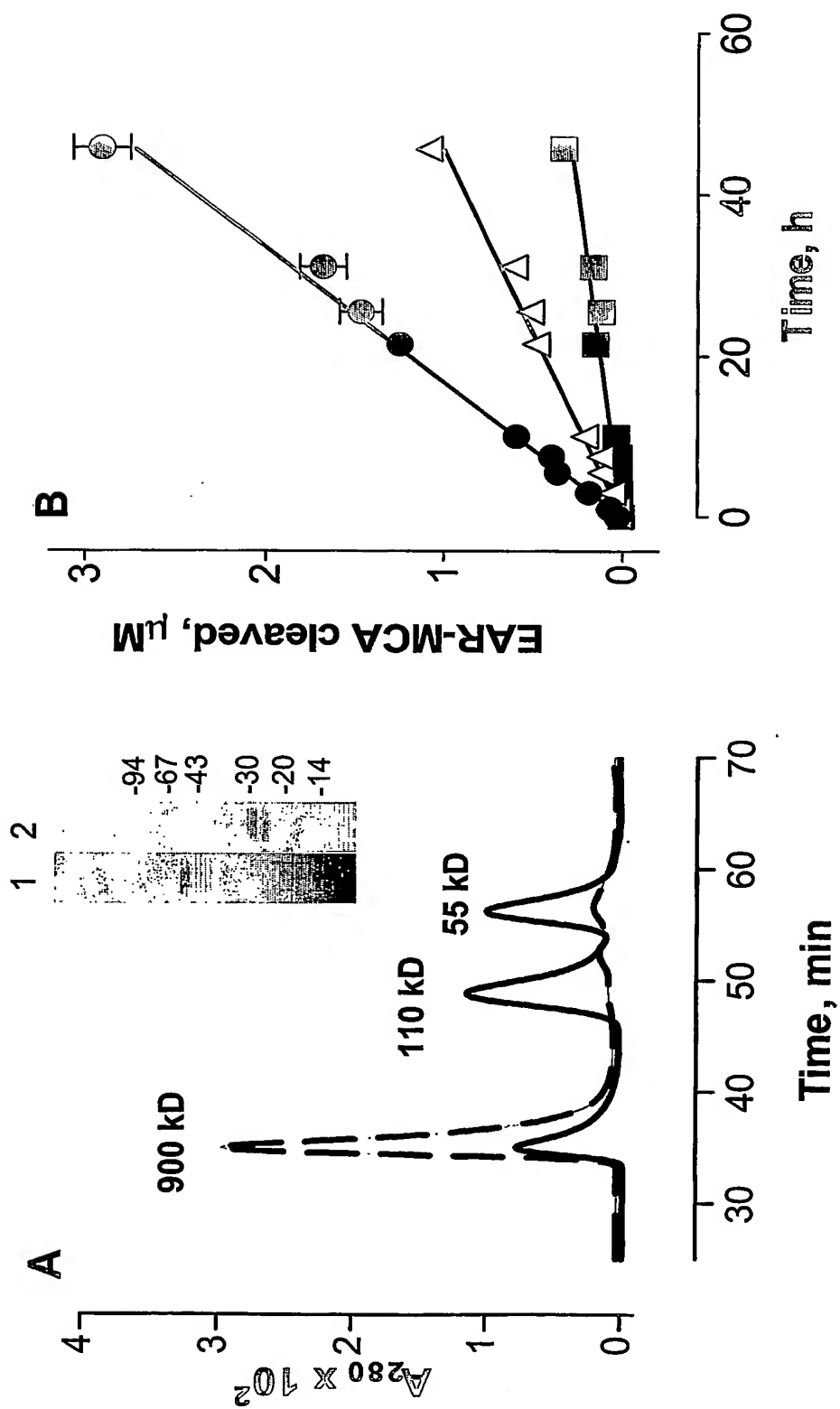


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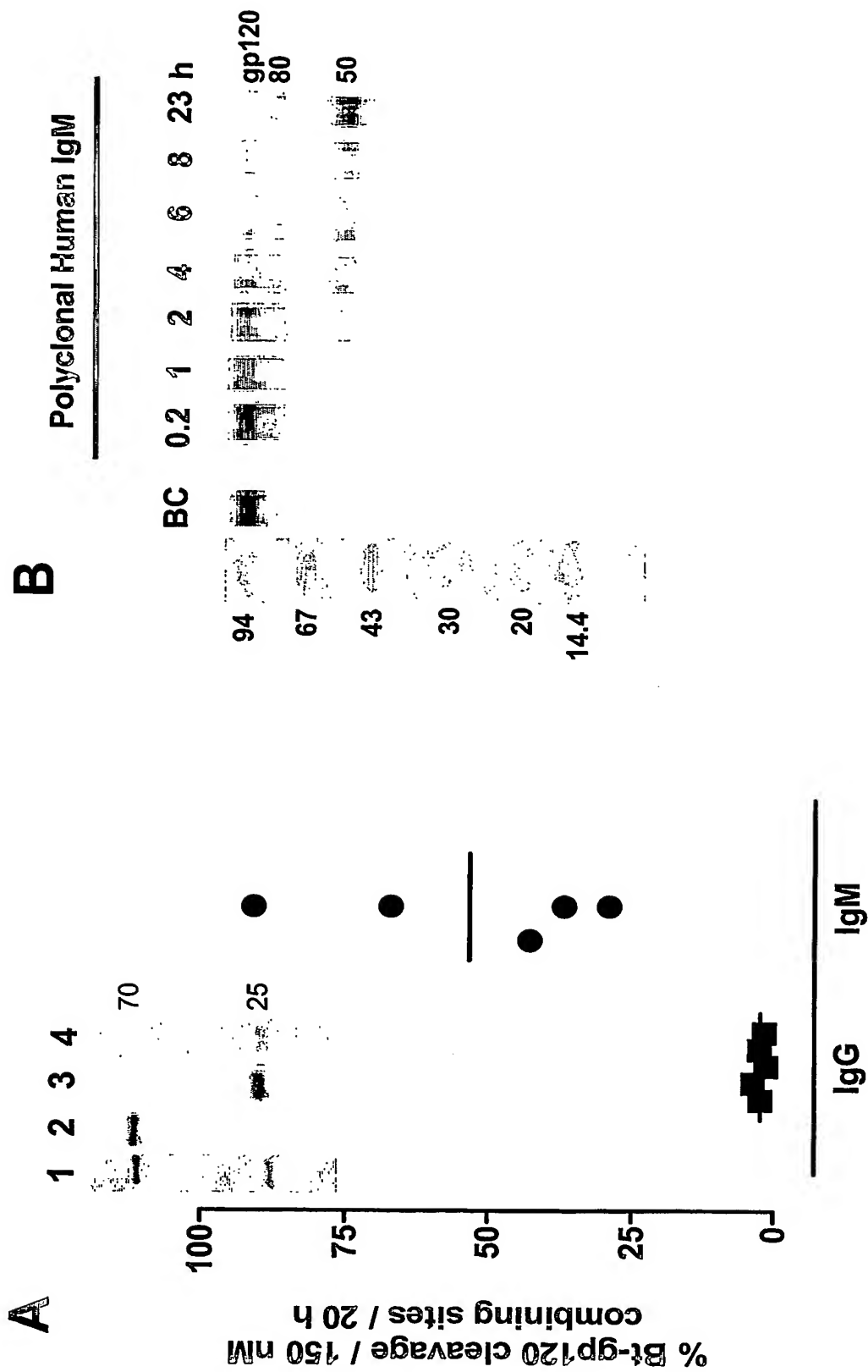


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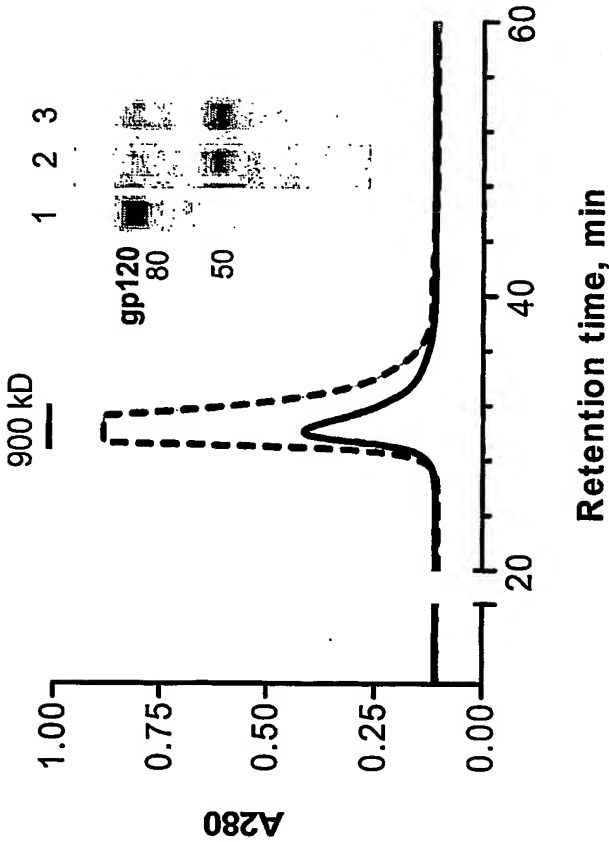


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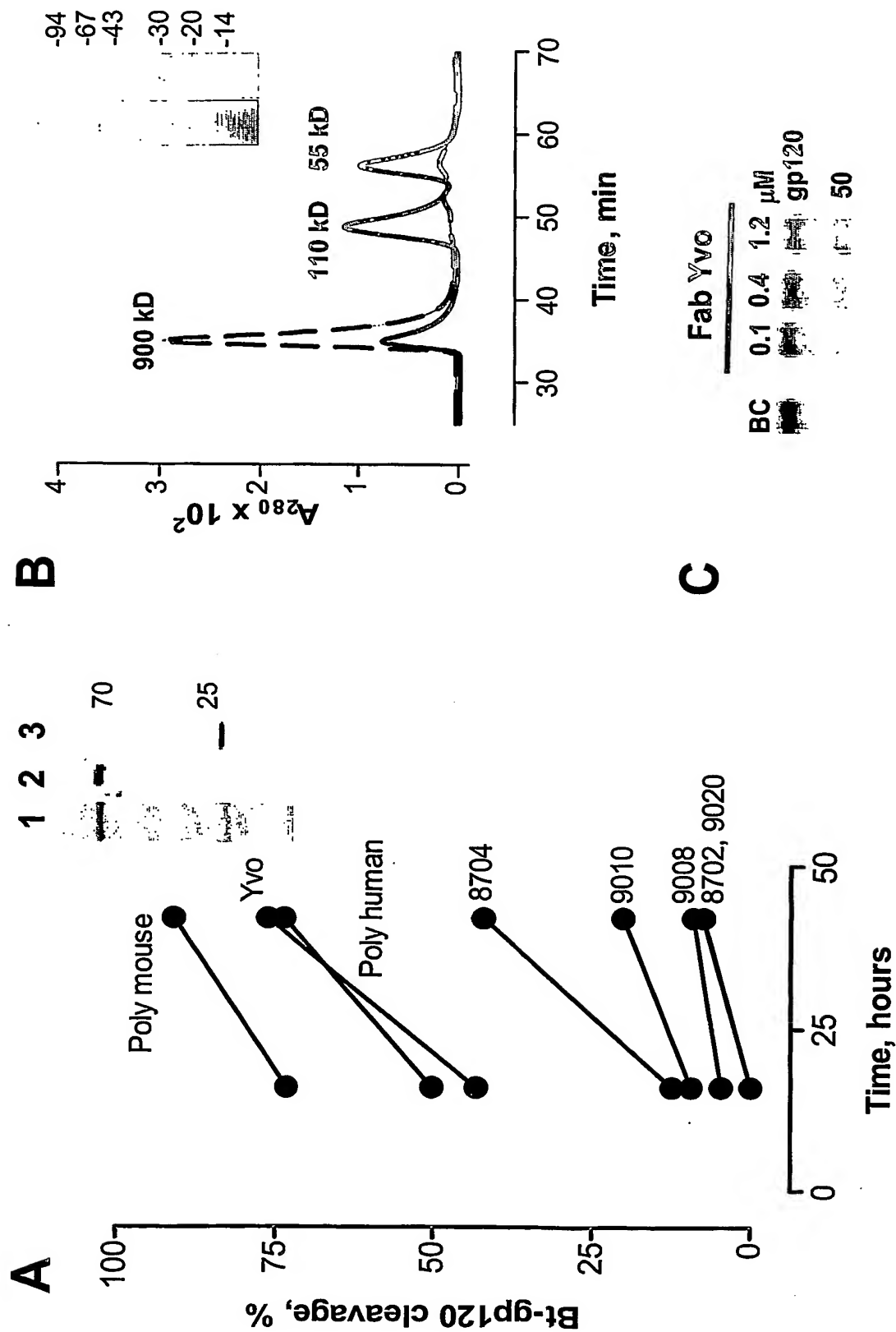
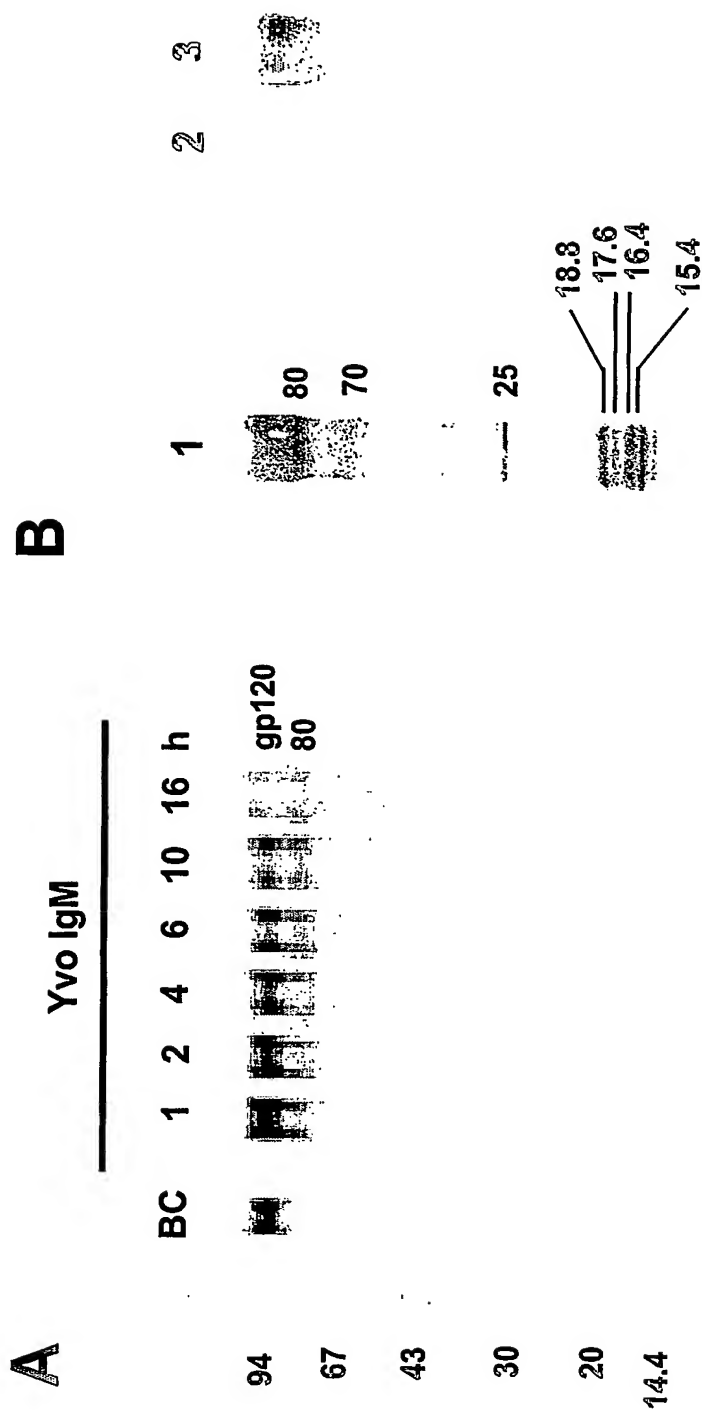


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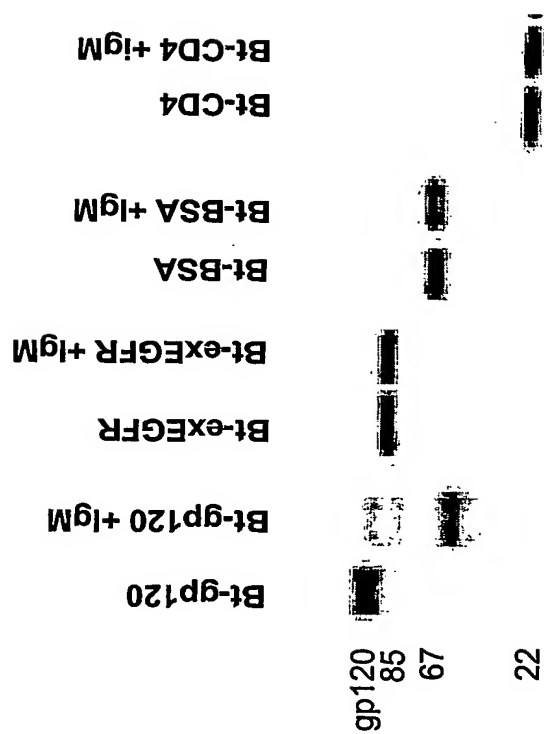


Fig 36

Fig 37

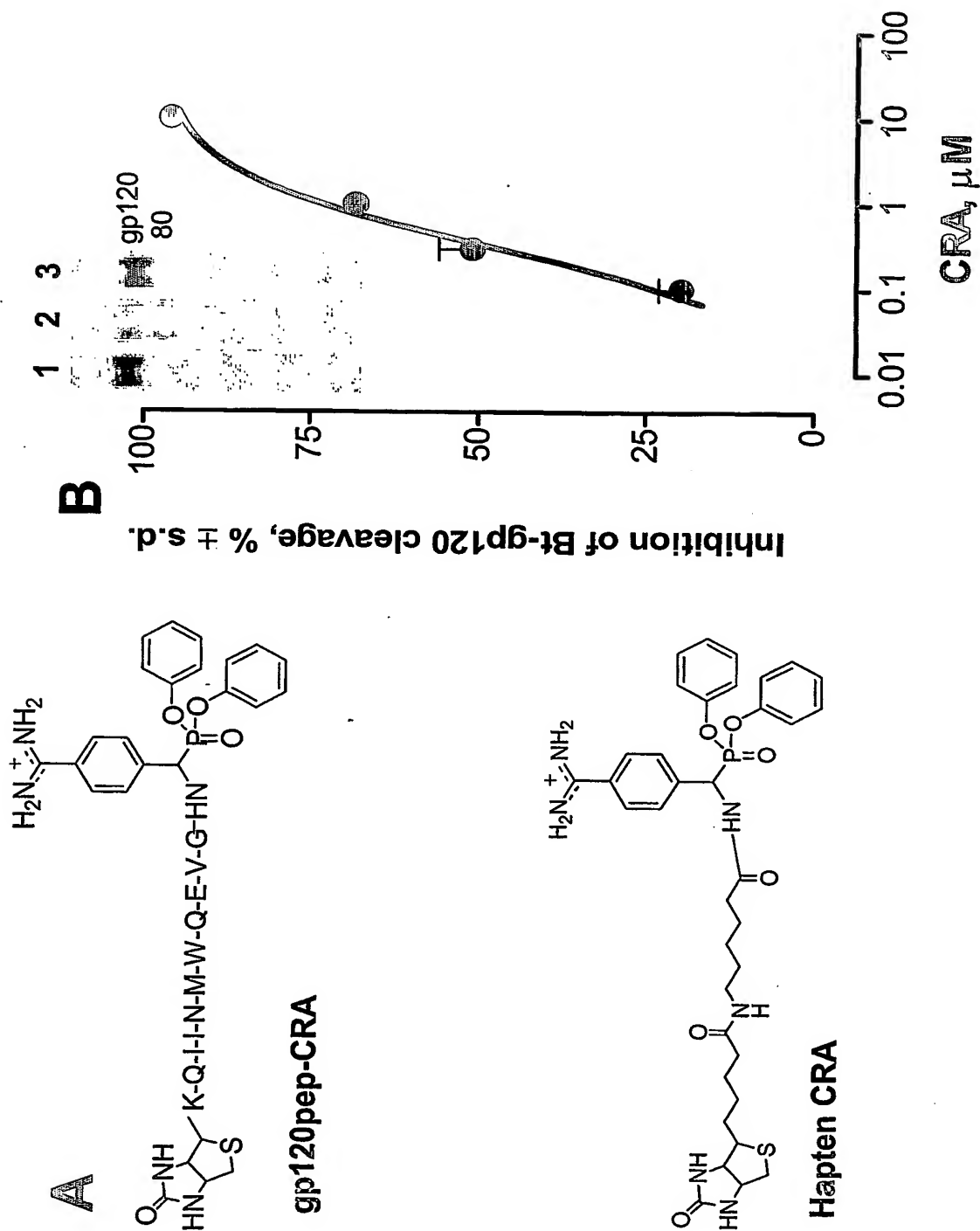


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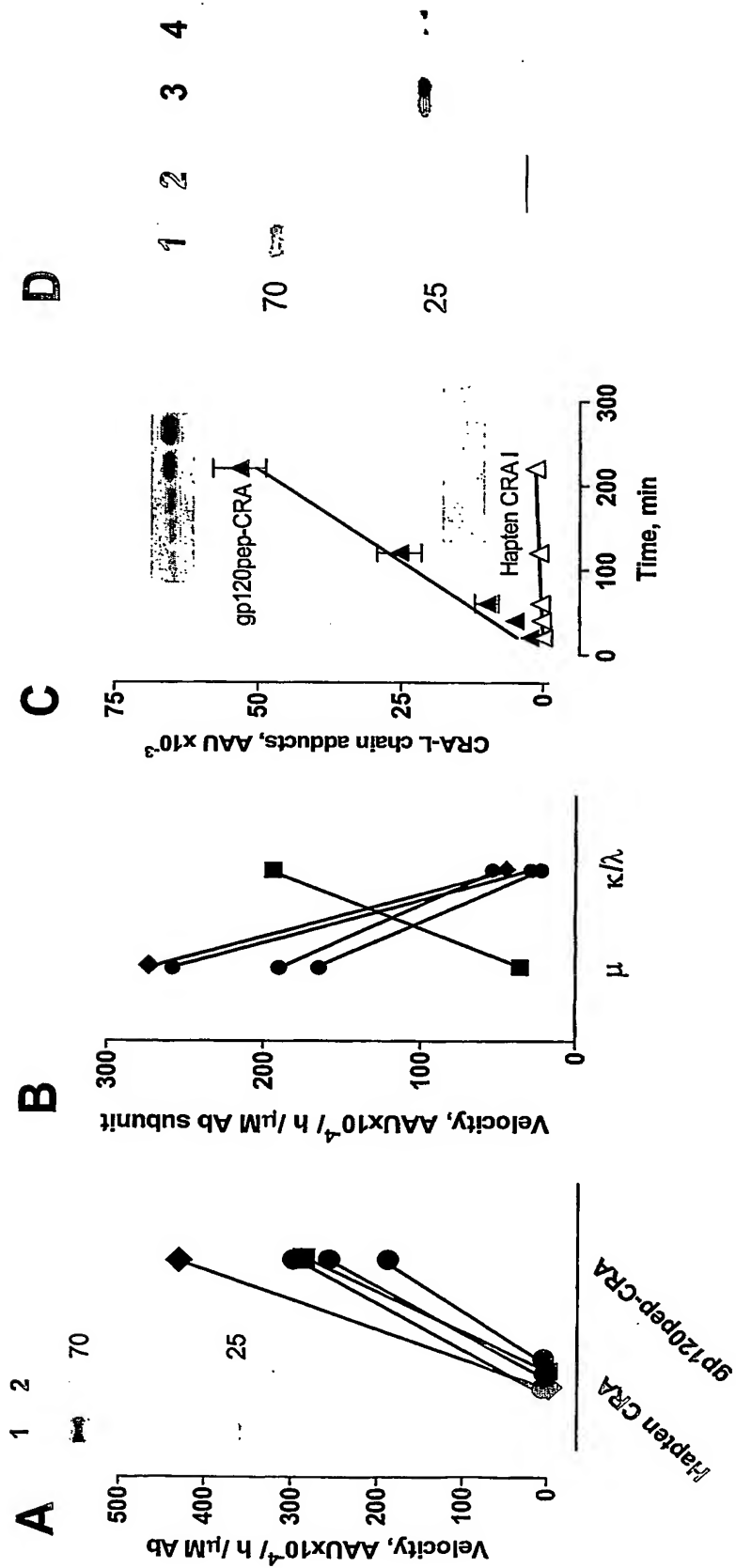
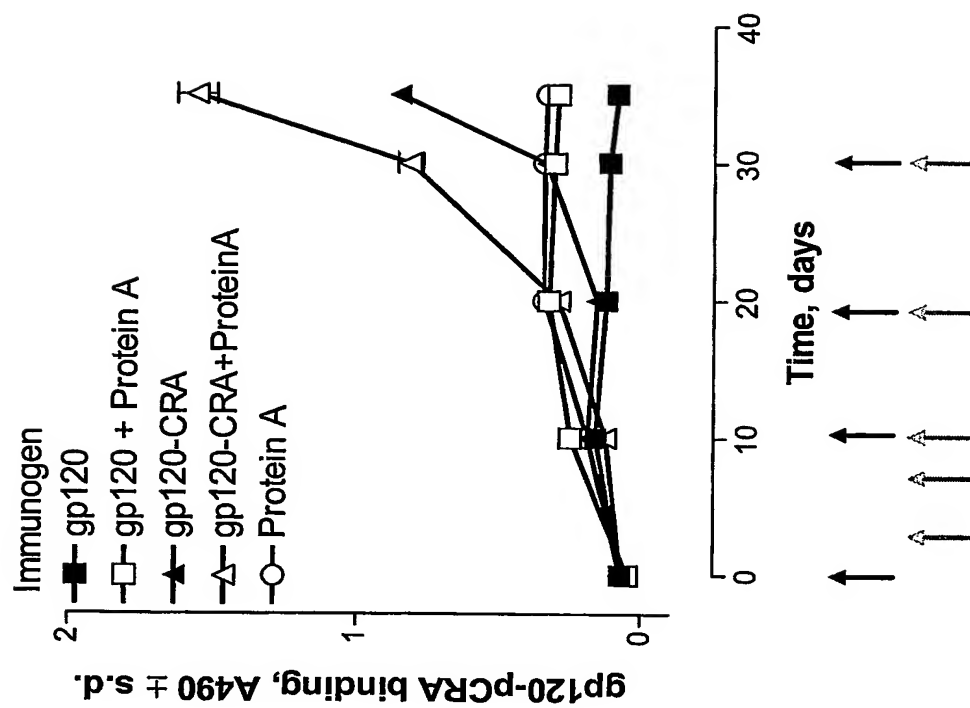


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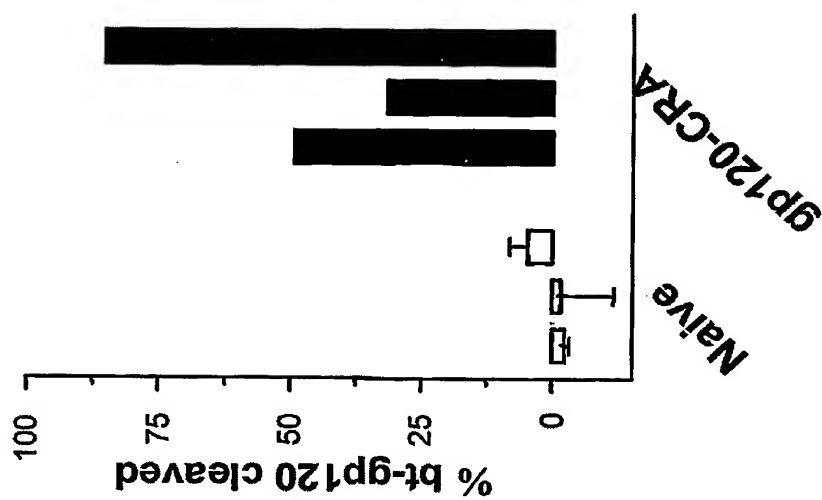


FIG 40

Fig 41

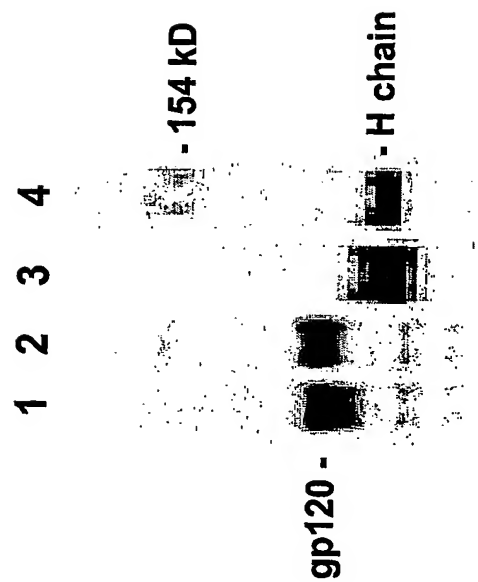


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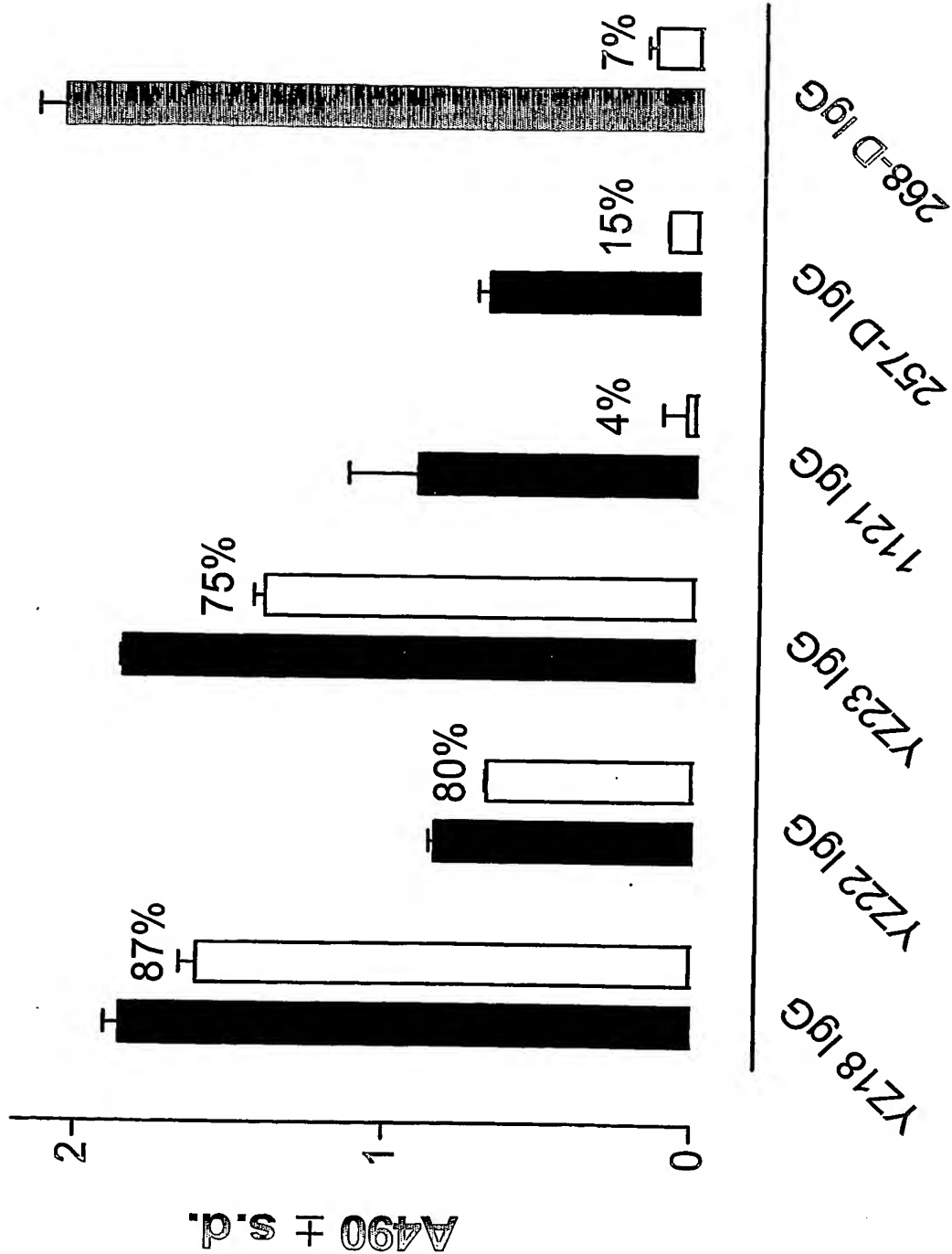
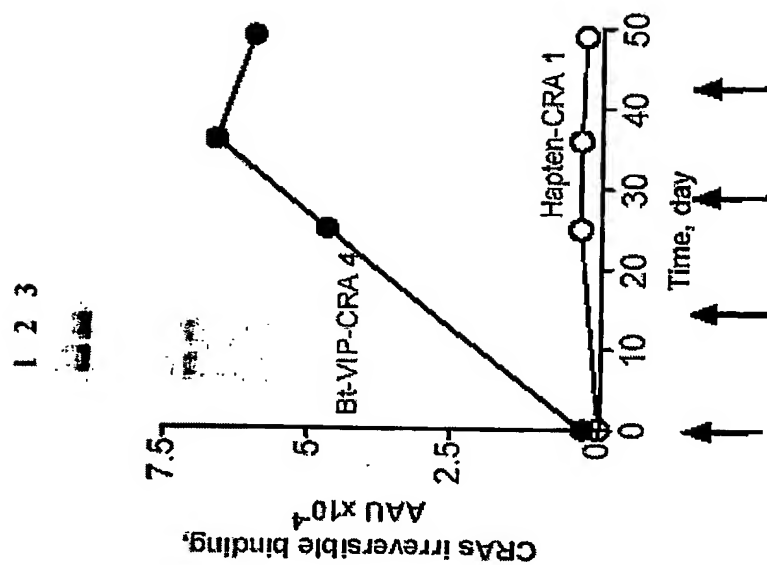


FIG 43



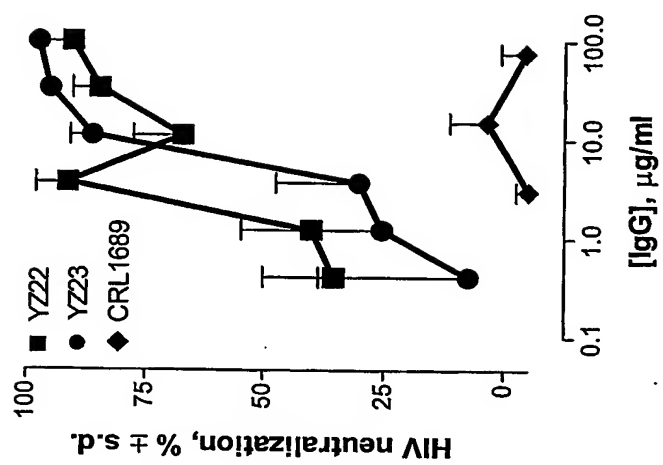
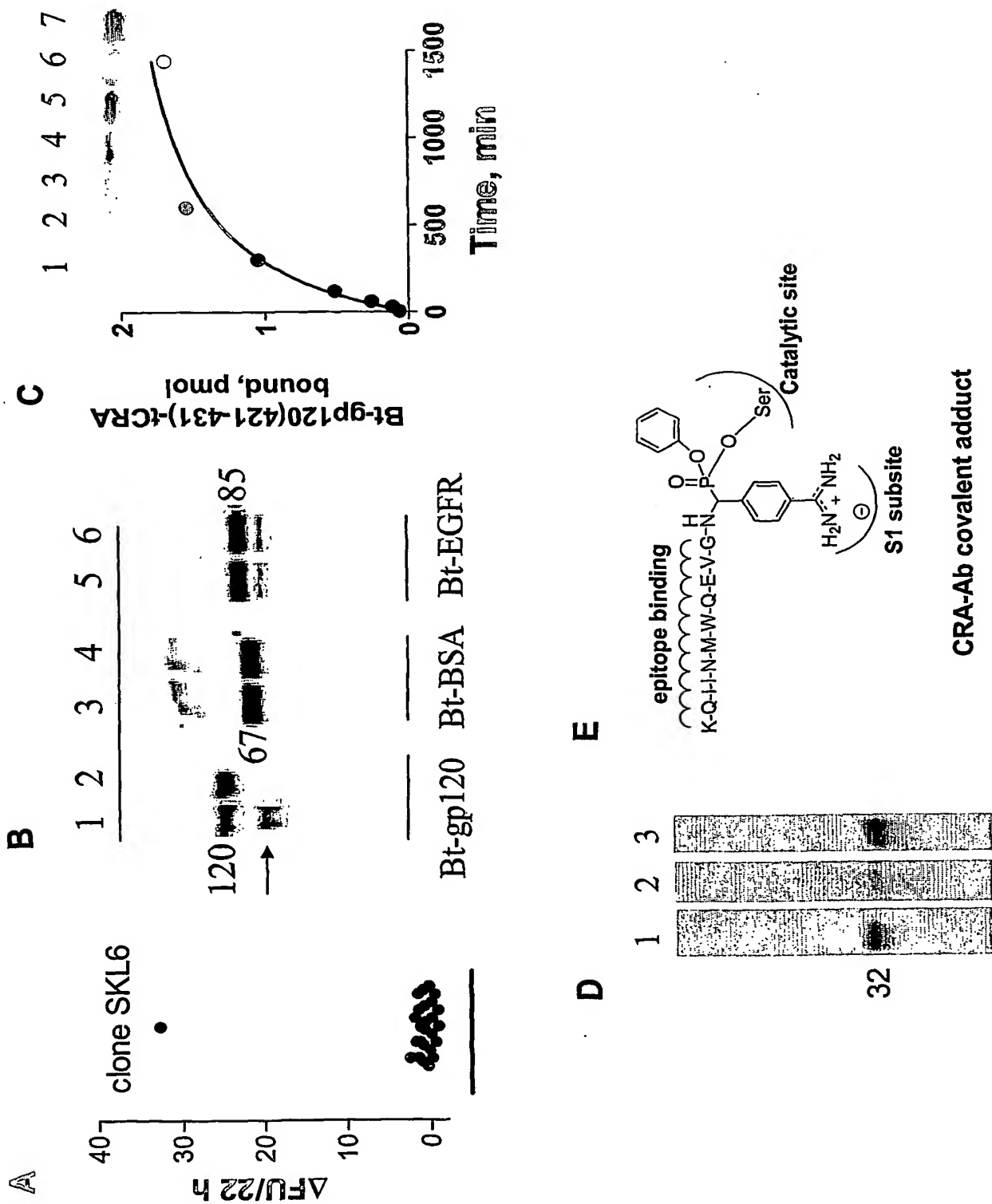
**Fig 44**

Fig 45



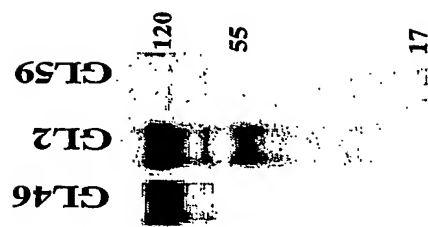


Fig 46

Fig 47

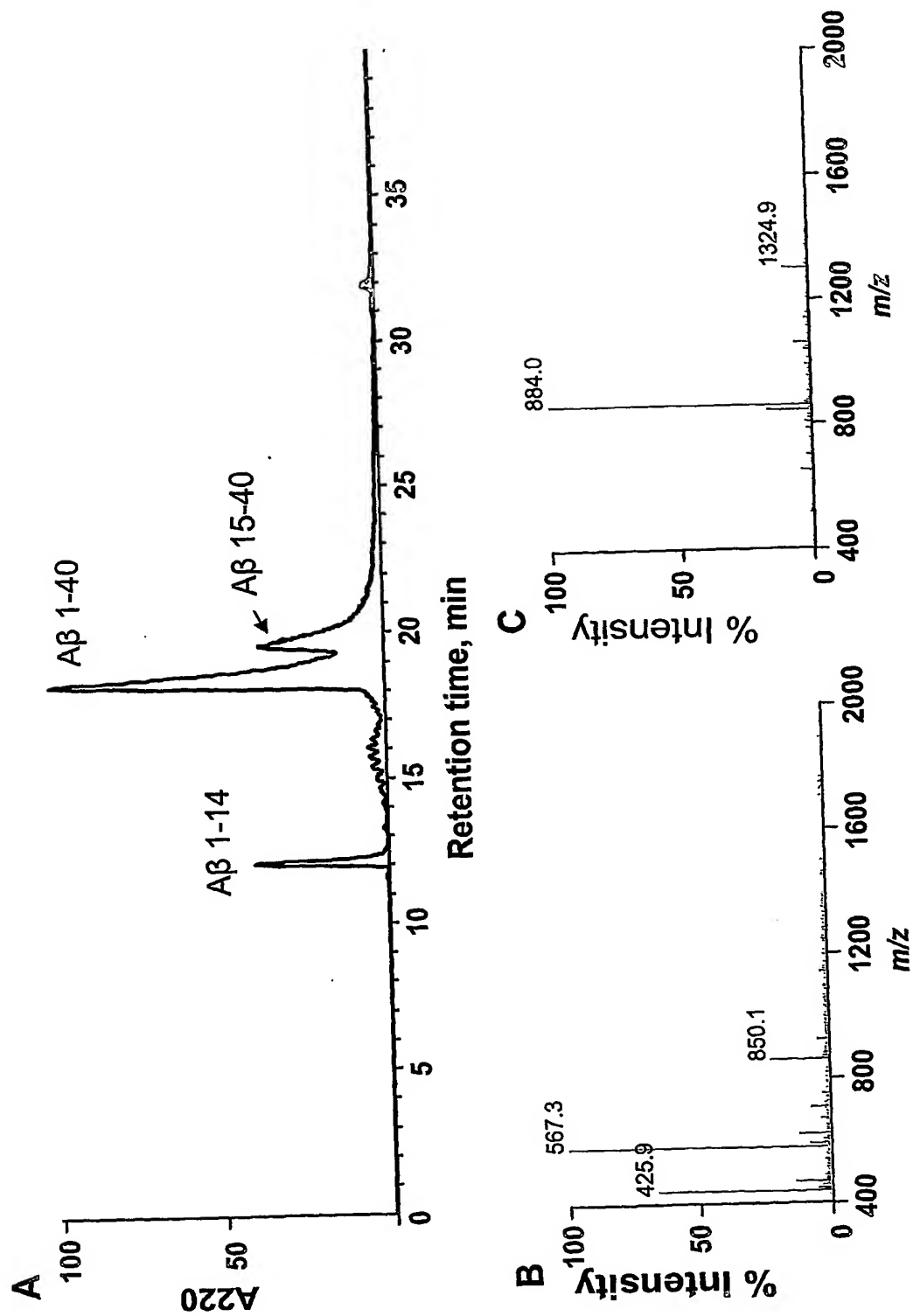


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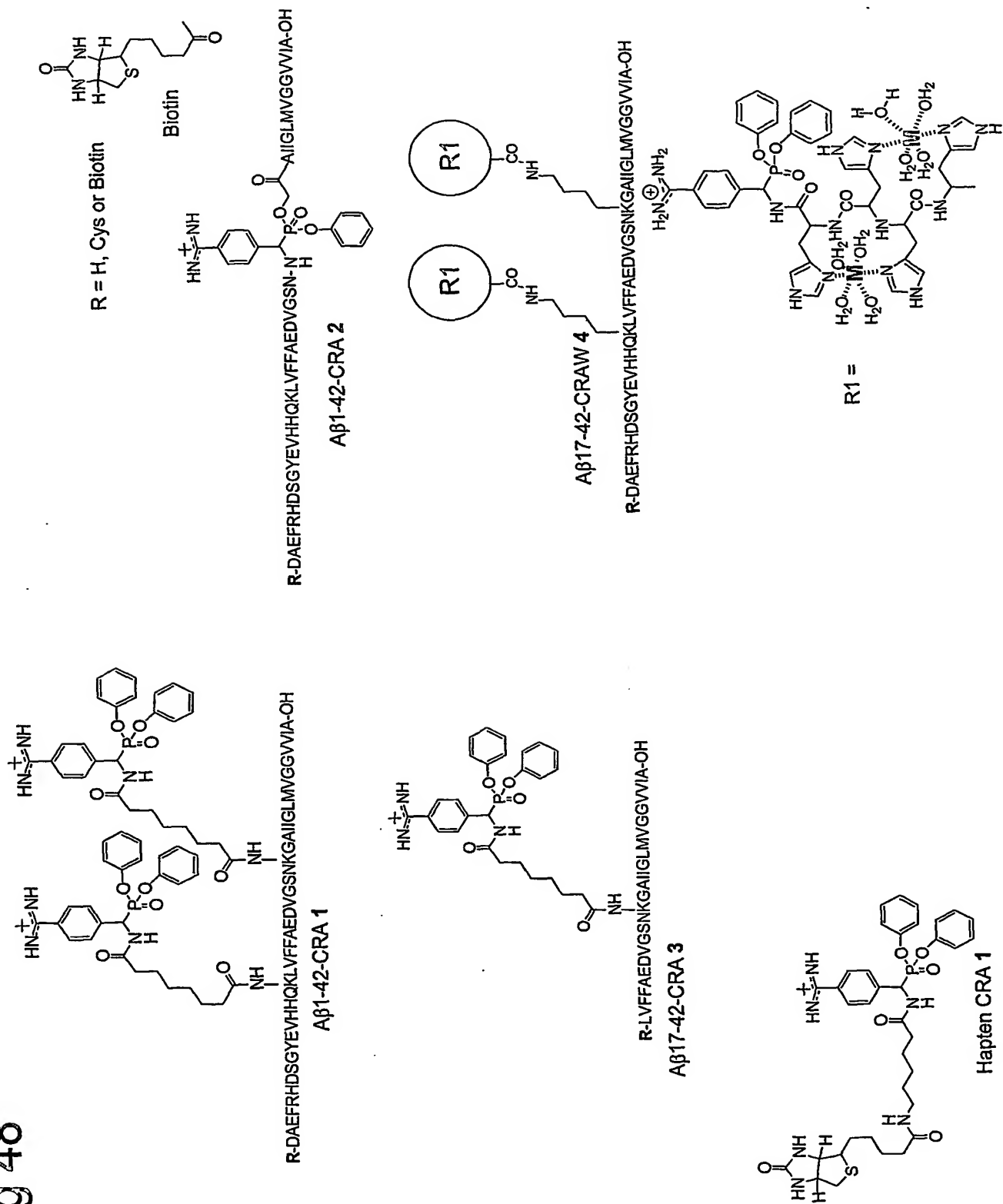
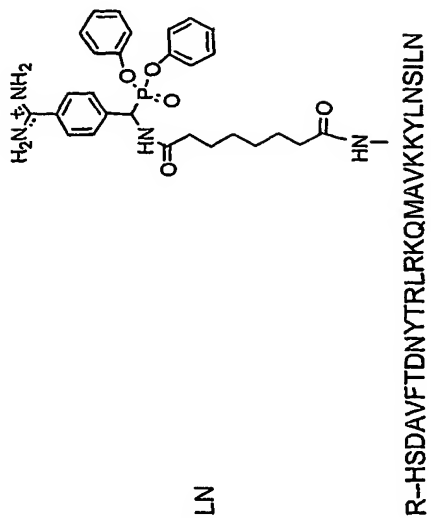
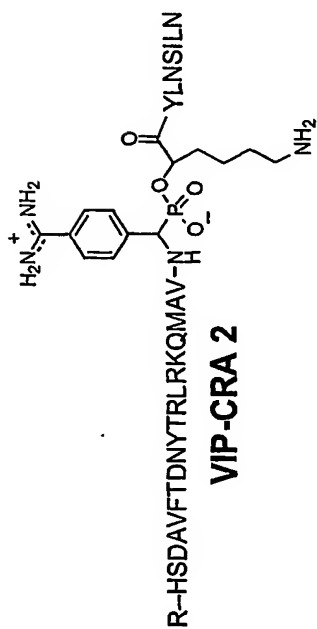


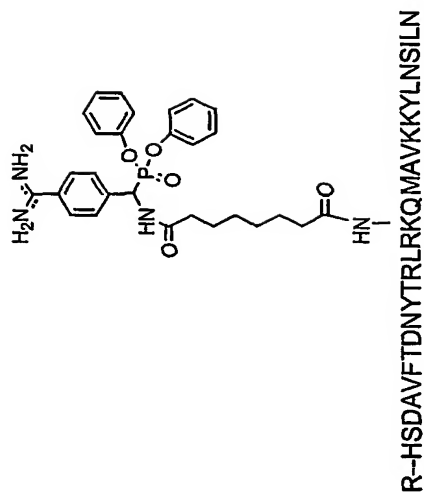
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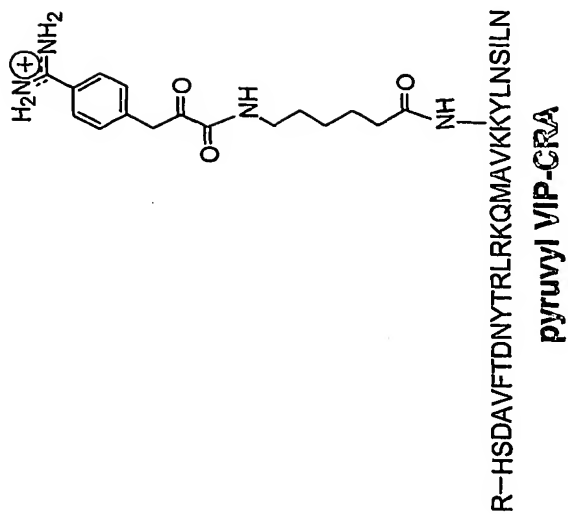
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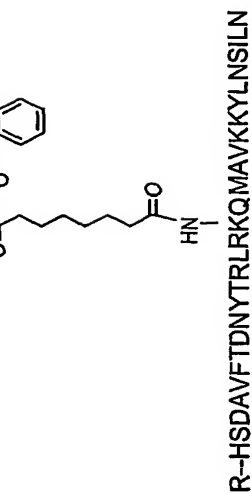
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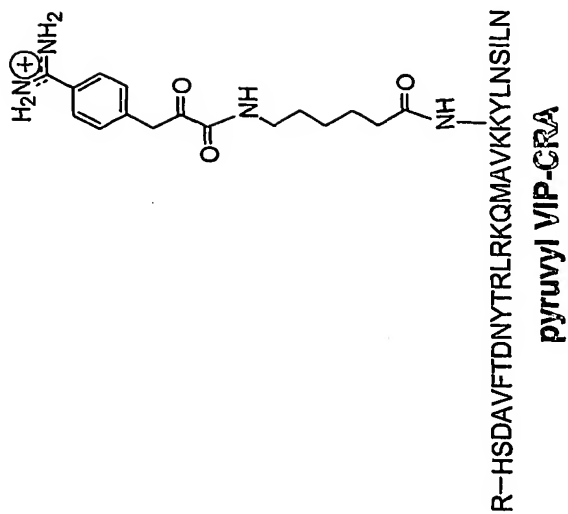
VIP-CRA 3



VIP-CRA 4



VIP-CRA 5



VIP-CRA 6

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